

# CNV-2016 Service Master record (Lean Services) - DESCOPE

In Progress

|              |                                                         |
|--------------|---------------------------------------------------------|
| Status       | In Progress                                             |
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| Stakeholders | @Cabrita, Rui                                           |

## Purpose

The purpose of this document is to define the conversion approach to create Service Master records in S/4HANA. It follows the Procurement Master Data Design Standard and is based on data being migrated from legacy SAP ECC systems (PF2, WP2) into SAP S/4HANA.

The purpose of this document is to define the conversion approach to upload data in S/4 HANA.

This file is aligned with the Conversion Specification Guidelines

### ---CHECKLIST - DATA TEAM---

- ☒ 1) Legacy systems (Logical Source and Target Systems are identified)
- ☒ 2) Extraction methods and file types
- ☒ 3) Scope relevancy criteria
- ☐ 4) Target structure/ Rules
- ☒ 5) MDS links
- ☐ 6) Cleansing rules
  - ☒ 6a) Cleansing reports with technical information
  - ☐ 6b) Profiling
  - ☒ 6c) Deduplication (with technical details of Table-Fields, Conditions)
  - ☒ 6d) Frequency of running reports
- ☒ 7) Transformation - and for this DOMD template must be populate and final version of DOMD template should be copied to Transformation section in CSpecs
- ☒ 8) Configuration/Value mapping file link
- ☒ 9) Value Mappings (Data Mapping is provided for mappings which are not obvious to a suitably-skilled and experienced developer)
- ☒ 10) Load template link
- ☒ 11) Loading method (Processing Type is specified, i.e. Direct Input, BAPI, IDoc, Web Service, OData API, etc.)
- ☒ 12) Loading sequence or dependency
- ☒ 13) Error handling requirements are specified / including alerting requirement / expected action on failure.
- ☒ 13) Data Analysis
- ☐ 14) Pre load validation
- ☐ 15) Post load validation
- ☐ 16) any Exceptions (Data Mapping is provided for mappings which are not obvious to a suitably-skilled and experienced developer)
- ☐ 17) Application log requirement if applicable to be specified.
- ☐ 18) Signoff

## Conversion Scope

Both object types (ASMD / MARA) are currently used in parallel to support service procurement. While they may sometimes represent similar business needs, they are maintained and processed independently in the legacy systems.

In the **target system (S/4HANA)**, all services will be represented exclusively as Lean Services within the Material Master (Material Type = SERV or ZSER), in line with the Procurement Master Data Design Standard. This approach eliminates the need for separate Service Master objects and service material types, providing:

- A **single master data object** for all services.
- **Standardized naming, classification, and valuation.**
- Harmonized Material Groups for enterprise-wide reporting and spend analysis.

The conversion scope includes:

- Extracting both Service Master (ASMD) and Materials-as-Services records (MARA).
- Cleansing, harmonizing, and deduplicating entries across both object types.
- Mapping legacy keys to new Lean Service material numbers for traceability.
- Excluding obsolete, incomplete, or unused records.

List of source systems and approximate number of records

| Source    | Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Source Approx No. of Records                                                        | Target System | Target Approx No. of Records    |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|---------------------------------|
| PF2 - 020 | <p>The Service Master Records (ASMD) and the Material Master Records created as Services (MARA with Service Material Types (<b>PF2</b> = DIEN, Z710, Z720, Z732, or <b>WP2</b> = DIEN, ZDIE) will be extracted.</p> <p>An initial extract of the relevant data will be provided in Google Sheet format to support the business in reviewing and deciding which records should be included in scope for migration from the Source Systems.</p> <p>A data review, harmonization, and standardization exercise will be carried out across both Service Master and Service-as-Material records. This includes:</p> <ul style="list-style-type: none"> <li>-Consolidation of overlapping entries.-Standardization of descriptions, units of measure, and language usage.</li> <li>- Identification and removal of obsolete or redundant Services.</li> <li>- Ensuring consistency in classification and purchasing-related fields.</li> </ul> | <p>924 Materials (MARA)</p> <p>127.066 Services (ASMD)</p> <p><del>34.756</del></p> | S4H           | Lean Service Materials: 131.238 |
| WP2 - 400 | <p>The final, validated dataset will represent the merged and standardized Services to be migrated into SAP S/4HANA Lean Services.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>355 Materials (MARA)</p> <p>2.892 Services (ASMD)</p> <p><del>624</del></p>      | S4H           |                                 |

## MDS Documents

| Date     | Situation | Current Link |
|----------|-----------|--------------|
| 20250918 |           |              |

## Relevancy Rules

### Service Master (ASMD) - Relevancy Rule (meeting 20251015 1733)

Service Master to Material Master Conversion:

- Not All Service Masters Migrated: Only a fixed, business-validated subset of active service masters (with activity in past three years and not marked for deletion) is considered relevant for migration.
- Service Masters Become Material Masters: Migrated service masters are converted to material masters (product type 2).
- No Info Records in Legacy for Services: Generally, info records don't exist for services. Pricing for services will come from either contracts or is to be collected as part of the master data process (DCT).
- If Service Becomes Material: Once converted, the same PIR relevancy rule applies: if info records are needed (i.e., there is no contract), info record can be created; otherwise, contract is prioritized.
- Price Collection: When collecting service master data, price information is also collected so it can be used to create either an info record or contract in the target system based on business need/decision.
- Further Business Confirmation Needed: Approach is to check feasibility of creating info records for converted service masters and verify with business if their processes require it.
- Summary and DCT instructions:
  - List of Service master records will be provided by functional leads (Dean and Anjali) after validation with Business and all pods.

- Pricing data for service masters will be collected in DCT and will be created as contracts or info records based on business confirmation.
- Data will be captured in DCT(Data collection template)

## **\*\*\*SERVICES AS MATERIALS (MARA TABLE) - System PF2/WP2**

### Relevant Tables for the Extraction

| Groups     | Table                          | Purpose                                                                                     | Key fields (core)               | Linkage                                                          | Typical filters / notes                                                                                                                                                                                                                                                                                 |
|------------|--------------------------------|---------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Group<br>A | <b>MARA</b>                    | Central Material Master (type, base UoM, dimensions, weights, creation date, status flags). | MANDT, MATNR                    | --- Root Table                                                   | Filter by client (MANDT), material type (MTART), deletion flag (LVORM), etc. In ECC MATNR is 18-char (leading zeros).                                                                                                                                                                                   |
|            | <b>MAKT</b>                    | Language-dependent short descriptions (MAKTX).                                              | MANDT, MATNR, SPRAS             | Link to MARA: MAKT.<br>MATNR = MARA.MATNR                        | Filter SPRAS (e.g., 'E', 'F...'), or pick "best language".<br><br>MARA MAKT: MAKT.MANDT = MARA.MANDT and MAKT.MATNR = MARA.MATNR (1 material : many language texts).                                                                                                                                    |
|            | <b>MARM</b>                    | Alternative UoMs and conversion factors.                                                    | MANDT, MATNR, MEINH             | Link to MARA:MARM.<br>MATNR = MARA.MATNR                         | Base UoM is MARA.MEINS; conversions via UMREZ/UMREN.<br><br>MARA MARM: MARM.MANDT = MARA.MANDT and MARM.MATNR = MARA.MATNR (1 : many UoMs).                                                                                                                                                             |
|            | <b>MEAN</b>                    | EAN/UPC/GTINS for a material (often per UoM).                                               | MANDT, MATNR, EAN11 (+ MEINH)   | Link to MARA:MEAN.<br>MATNR = MARA.MATNR                         | Join to MARM on MATNR+MEINH when you need UoM-specific GTINS.<br><br>MARA MEAN: MEAN.MANDT = MARA.MANDT and MEAN.MATNR = MARA.MATNR (1 : many GTINS).<br>Optional: if MEAN.MEINH is populated, it also corresponds to MARM.MEINH for that material.                                                     |
|            | <b>STXH</b>                    | SAPscript long-text header for material texts.                                              | TDOBJECT, TDNAME, TDID, TDSPRAS | Link to MARA:<br>TDOBJECT='MATERIAL' and TDNAME = MATNR (padded) | Typical TDIDs: 'GRUN' (Basic Data), 'SALES', 'PURCH'.<br><br>MARA STXH/STXL (long texts):<br>STXH.TDOBJECT = 'MATERIAL' and STXH.TDNAME = MARA.MATNR (padded);<br>STXL holds the lines for the same (TDOBJECT, TDNAME, TDID, TDSPRAS) key.<br>Common TDIDs for Basic Data: GRUN (basic), SALES, PURCH.  |
|            | <b>STXL</b>                    | SAPscript long-text lines (content).                                                        | (cluster key matching STXH)     | via STXH keys                                                    | Read/display via text functions; storage is clustered.<br><br>MARA STXH/STXL (long texts):<br>STXH.TDOBJECT = 'MATERIAL' and STXH.TDNAME = MARA.MATNR (padded);<br>STXL holds the lines for the same (TDOBJECT, TDNAME, TDID, TDSPRAS) key.<br>Common TDIDs for Basic Data: GRUN (basic), SALES, PURCH. |
|            | <b>ZZM_G<br/>PS_MA<br/>TKL</b> |                                                                                             |                                 |                                                                  |                                                                                                                                                                                                                                                                                                         |

|            |              |                                                                                     |                                                        |                                                   |                                                                                                                                                                                                                                            |
|------------|--------------|-------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Group<br>B | <b>CABN</b>  | Characteristic definitions (metadata: name ATNAM, data type, length, value domain). | ATINN (internal), ATNAM                                | via ATINN (through KSML /AUSP)                    | Use to resolve internal ATINN external ATNAM.<br><br>KSML CABN (characteristic catalog): KSML. ATINN = CABN.ATINN (characteristic technical definition).                                                                                   |
|            | <b>CABNT</b> | Characteristic texts (language-dependent).                                          | ATINN, SPRAS                                           | via CABN.ATINN                                    | Bring characteristic descriptions by language.<br><br>CABN CABNT (characteristic texts): CABNT. ATINN = CABN.ATINN (language-dependent).                                                                                                   |
|            | <b>CAWN</b>  | Predefined values for a characteristic (for value-lists).                           | ATINN, ATZHL (+ ATWRT)                                 | via CABN.ATINN                                    | One row per allowed value; position ATZHL is the value key.<br><br>CABN CAWN CAWNT (value lists and texts): CAWN.ATINN = CABN.ATINN; each allowed value is keyed by ATZHL. CAWNT provides texts per (ATINN, ATZHL, SPRAS).                 |
|            | <b>CAWNT</b> | Texts for the predefined values.                                                    | ATINN, ATZHL, SPRAS                                    | via CAWN(ATINN,ATZHL)                             | Language-dependent value labels.<br><br>Use the same logic of CAWN                                                                                                                                                                         |
|            | <b>KLAH</b>  | Class header (e.g., class type 001 for material classes).                           | CLINT (internal), KLART, CLASS                         | via CLINT (to KSML/KSSK)                          | Filter KLART='001' for material classification.<br><br>KSSK KLAH (class header): KSSK.CLINT = KLAH.CLINT and KLAH.KLART = '001'.                                                                                                           |
|            | <b>KLAT</b>  | Class texts (language-dependent).                                                   | CLINT, SPRAS                                           | via KLAH.CLINT                                    | Get the class description.<br><br>KLAH KLAT (class texts): KLAT.CLINT = KLAH.CLINT (language-dependent class names).                                                                                                                       |
|            | <b>KSML</b>  | Class Characteristic assignments.                                                   | CLINT, ATINN                                           | via KLAH.CLINT & CABN. ATINN                      | Which characteristics belong to a class.<br><br>KLAH KSML (class characteristic): KSML. CLINT = KLAH.CLINT (which characteristics the class contains).                                                                                     |
|            | <b>KSSK</b>  | Object (material) Class assignments.                                                | OBJEK, CLINT, KLART                                    | Link to MARA: KSSK. OBJEK = MARA.MATNR (padded)   | Filter OBJTAB='MARA', KLART='001'. OBJEK = material number with leading zeros (ECC: 18 chars).<br><br>MARA KSSK (object class): KSSK.OBJEK = padded(MARA.MATNR) and KSSK.KLART = '001'; each row links a material to a class (KSSK.CLINT). |
|            | <b>AUSP</b>  | Assigned characteristic values for an object.                                       | OBJEK, ATINN, KLART (+ ATWRT/ATFLV)                    | Link to MARA: AUSP. OBJEK = MARA.MATNR (padded)   | MARA AUSP (assigned values): AUSP.OBJEK = padded(MARA.MATNR) and AUSP.KLART = '001';<br><br>AUSP.ATINN = CABN.ATINN; value stored in AUSP.ATWRT (char) or AUSP.ATFLV (numeric).                                                            |
| Group<br>C | <b>EKKO</b>  | Purchase Order header (dates; organizational scope: BUKRS, EKORG).                  | MANDT, EBELN, BUKRS, EKORG, AEDAT/BEDAT                | Via EKPO ESLL to reach ASMD                       | Filter by client. Dates used for "last 3 years" window. Org scope checked against in-scope BUKRS/EKORG lists.                                                                                                                              |
|            | <b>EKPO</b>  | PO item lines (service items, open/closed flags, optional plant).                   | MANDT, EBELN/EBELP, PSTYP, ELIKZ, LOEKZ, WORKS, PACKNO | EKPO.PACKNO ESLL. PACKNO ESLL.SRVPOS = ASMD.ASNUM | PSTYP = '9' (service). Open item = ELIKZ 'X' and LOEKZ 'X'. WORKS used only if plant scoping is enforced.                                                                                                                                  |

Execution Logic:

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## SINGLE

- All materials created in the previous 6 months will be included unless flagged for deletion.

## GLOBAL

Will only include materials that are extended to the following:

- only include POs that have Purch Org and Plants in scope

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## TO BE EXCLUDED

Evaluated in this exact order; first match wins:

### Scope prerequisites

- **Client:** MANDT = (PF2 = '020' or WP2 = '400')
- **Material types** in scope (MARA-MTART): (PF2 = DIEN, Z710, Z720, Z732, or WP2 = DIEN, ZDIE)
- **Plant** in scope (MARC-WERKS): Material must be extended to at least one plant in
- **Exclusion indicator** (MARA-MSTAE): exclude materials with the following status (PF2 = Z3/Z4/ZZ; WP2 = Z0).

### 1) EXCLUDED (No activity, when >= 6m and <=3y) targeted recency rule

### 2) EXCLUDED (Obsolete text)

If MAK2-MAKTX indicates obsolescence:

- contains word OBSOLETE or DELETED, or
- after removing \* and spaces, contains OBS, or
- one of those acronyms mentioned in this file

### 3) EXCLUDED (MSTAE)

System-specific status code (PF2: Z3/Z4/ZZ; WP2: Z0).

### 4) EXCLUDED (LVORM)

If LVORM = 'X' and there is no open order within the last 3 years across SO/PO/PP:

HasOpenSO3Y = 0 AND HasOpenPO3Y = 0 AND HasOpenPP3Y = 0 exclude entry

### 5) EXCLUDED (No plant in scope)

If HasInScopePlant = 0 (and @RequirePlantExtension = 1).

### 6) EXCLUDED (No activity, 6m-3y) targeted recency rule

Exclude when all are true:

- **Created window:** ERSDA\_date <= @From6Months and ERSDA\_date >= @From3Years, and
- **No 3y activity:** HasSO3Y = 0 AND HasPO3Y = 0 AND HasPP3Y = 0.

### ~~7) EXCLUDED Material Group Mapping (Z2M\_GPS\_MATKL)~~

~~Match MARAMATKL to Z2M\_GPS\_MATKLMATKL with Z2MGOODSER='S'. If a match exists and LOEVM is not initial, the record is excluded.~~

~~If none of the above exclusions apply, the material is included (see topic 4 for more details).~~

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## TO BE INCLUDED

### Scope prerequisites

- **Client:** MANDT = (PF2 = '020' or WP2 = '400')
- **Material types** in scope (MARA-MTART): (PF2 = (PF2 = DIEN, Z710, Z720, Z732, or WP2 = DIEN, ZDIE)
- **Plant** in scope (MARC-WERKS): Material must be extended to at least one plant in
- **Exclusion indicator** (MARA-MSTAE): exclude materials with the following status (PF2 = Z3/Z4/ZZ; WP2 = Z0).

### 2) Time windows (used everywhere)

- **Materials with** <= 6 month since its creation, don't need to have any activity (PurchOrder, SalesOrder, Production)
- **Materials with up to 3 years**

### 3) Activity & Open definitions (last 3 years)

#### Sales Orders (SO)

- **Activity (HasSO3Y):** exists VBAP line joined to VBAK with VBAK.ERDAT >= @From3Years.
- **Open (HasOpenSO):** line is open if **any**:
  - VBAK-VBELN = VBAP-VBELN
  - VBAK-VBELN = VBUK-VBELN and
  - VBUK.GBSTK = ('A','B')

#### Purchase Orders (PO)

- **Activity (HasPO3Y):** **EKKO-LOEKZ <> 'X' and EKPO.LOEKZ <> 'X' and** EKPO COALESCE(AEDAT) >= @From3Years on a matching EKPO.
- **Open:** **EKKO-LOEKZ <> 'X' and EKPO.EREKZ <> 'X' and EKPO.LOEKZ <> 'X'.**

#### Production Orders (PP)

- **Activity (HasPP3Y):** COALESCE(AUFK.ERDAT) >= @From3Years on a matching AFPO AND AUFK.LOEKZ <> 'X'
- **Open (HasOpenPP):** AUFK.LOEKZ <> 'X' **AND Use AUFK for checking Open Process orders. Link field OBJNR to JEST.OBNR to get status codes not equal to TECO AND JEST.INACT="". Table TJ02 for status descriptions.**

### 4) Inclusion triggers (exceptional list)

- **An exception list should be available, and if** the material is in the manual table, it must be included.

### 6) Final filters before output

Even if a row/material has an INCLUDED reason, it must still pass all of these steps:

- IsObsoleteText = 0
- ExcludeByMSTAE = 0
- **Not** (LVORM='X' AND HasOpenSO3Y=0 AND HasOpenPO3Y=0 AND HasOpenPP3Y=0)
- And (IsForceIncluded = 1 OR EligibilityReason LIKE 'INCLUDED%')

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## \*\*\*SERVICES MASTER DATA (ASMD TABLE) - System PF2/WP2

### Relevant Tables for the Extraction

| Groups  | Table | Purpose                                                                                | Key fields (core)                                                                                      | Link to ASMD                                               | Typical filters / notes                                                                                                                |
|---------|-------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Group A | ASMD  | Core Service Master under evaluation (creation date, deletion flag, basic attributes). | MANDT, <b>ASNUM</b> , ERDAT (ERSDA), AEDAT, <b>LVORM</b> (LOEKZ), <b>MATKL</b> , <b>MEINS</b>          | — Root table                                               | Filter by client (MANDT); deletion flag is later overridden if there is open activity within 3 years.                                  |
|         | ASMDT | Language-dependent short descriptions (used for "obsolete/deleted" text heuristic).    | MANDT, <b>ASNUM</b> , <b>SPRAS</b> , KTEXT                                                             | <b>ASMDT.ASNUM = ASMD.ASNUM</b>                            | Choose "best language" (e.g., E). Detect "OBSOLETE/DELETED/OBS" (case-insensitive; trim spaces/asterisks).                             |
| Group B | EKKO  | Purchase Order header (dates; organizational scope: <b>BUKRS</b> , <b>EKORG</b> ).     | MANDT, <b>EBELN</b> , <b>BUKRS</b> , <b>E KORG</b> , AEDAT/BEDAT                                       | Via <b>EKPO ESLL</b> to reach ASMD                         | Filter by client. Dates used for "last 3 years" window. Org scope checked against in-scope <b>BUKRS/EKORG</b> lists.                   |
|         | EKPO  | PO item lines (service items, open/closed flags, optional plant).                      | MANDT, <b>EBELN/EBELP</b> , <b>PS TYP</b> , <b>ELIKZ</b> , <b>LOEKZ</b> , <b>WERKS</b> , <b>PACKNO</b> | <b>EKPO.PACKNO ESLL. PACKNO ESLL. SRVPOS = ASMD. ASNUM</b> | <b>PSTYP = '9'</b> (service). Open item = <b>ELIKZ 'X'</b> and <b>LOEKZ 'X'</b> . <b>WERKS</b> used only if plant scoping is enforced. |

|             |                                                                                 |                                                  |                                                                  |                                                                                                                                                 |
|-------------|---------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ESLL</b> | Service package lines; bridges PO/SES packages to <b>ASMD</b> (service number). | <b>MANDT, PACKNO, SRVPOS</b> (service number)    | <b>ESLL.SRVPOS = ASMD. ASNUM; ESLL.PACKNO</b> links to EKPO/ESSR | Essential link table; no direct date filters here.                                                                                              |
| <b>ESSR</b> | Service Entry Sheet header (evidence of recent/open SES activity).              | <b>MANDT, PACKNO, BUDAT, LOEKZ, EBELN, EBELP</b> | <b>ESSR.PACKNO ESLL. PACKNO ESLL. SRVPOS = ASMD. ASNUM</b>       | "Recent" if <b>BUDAT Today 3 years</b> . Open if <b>L OEKZ 'X'</b> . Org scope derived via <b>EKKO /EKPO</b> on <b>EBELN/EBELP</b> (LEFT JOIN). |

## Execution Logic:

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### SINGLE

- All materials created in the previous 6 months will be included unless flagged for deletion.

### GLOBAL

We will only include materials that are extended to the following:

- only include plants that are in-scope
- only include company codes that are in-scope
- only include purchasing orgs that are in-scope
- only include sales orgs that are in-scope
- only include POs that have Purch Org and Plants in scope
- ~~- only include SOs that have Sales Org and Plants in scope~~
- ~~- only include PPs that have Plants in scope~~

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### SINGLE

- All services created in the previous 6 months (ASMD-ERDAT >= @From6Months) are included unless excluded by LVORM/MSTAE/text rules. (Services are client-level; no plant extension applies.)

### GLOBAL

- Client: MANDT IN (PF2-020, WP2-400)
- Company codes / purchasing orgs in scope: restrict via your in-scope lists, applied through the documents that reference the service (POs/Entry Sheets).
- Purchasing Organization in scope: restrict via your in-scope lists, applied through the documents that reference the service (POs/SOs/Entry Sheets).

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## TO BE EXCLUDED

Evaluated in this exact order; first match wins:

**1) EXCLUDED (No activity, when >= 6m and <=3y) targeted recency rule**

**2) EXCLUDED (Obsolete text)**

Obsolete text detected in ASMDT (OBSOLETE / DELETED / (OBS) / " obs ").

**3) EXCLUDED (MSTAE)**

System-specific status code (PF2: Z3/Z4/ZZ; WP2: Z0/Z5).

**4) EXCLUDED (LVORM)**

Deletion flag (LVORM=X) and no open PO/SES in the last 3 years.

**5) EXCLUDED No activity and AEDAT between 6 months and 3 years ago.**

~~6) EXCLUDED Material Group Mapping (ZGM\_GPS\_MATKL)~~

Match ASMDMATKL to ZZM\_GPS\_MATKLMATKL with ZZMGOODSER='S'. If a match exists and LOEVM is not initial, the record is excluded. The solution publishes MAPPED/UNMAPPED reports for governance visibility.

If none of the above exclusions apply, the material is included (see topic 4 for more details).

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## TO BE INCLUDED

### 1) INCLUDED Any entry based on the SES spec path (even in case the service is marked for deletion but the SES remains open)

- Pass ASMD.ASNUM to ESSL.SRVPOS and get ESSL.PACKNO
- Pass ESSL.PACKNO to ESLH.PACKNO and get ESLH.HPACKNO
- Pass ESLH.HPACKNO to EKPO.PACKNO, to get PO document number for the Service Number

### 2) INCLUDED Default pass (no negatives matched).

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## \*\*\* Canonical Key & Deduplication

### Current status Production extraction

| Dedup             | Combined | PF2  | WP2 |
|-------------------|----------|------|-----|
| Total Records     | 10174    | 9821 | 353 |
| Unique Records    | 7811     | 7523 | 288 |
| Duplicate records | 2363     | 2298 | 65  |

Deduplication of records from Material as Service (MARA) and Service Master (ASMD) tables. Evaluated in this exact order; first match wins:

| Seq<br>uen<br>cy | Table                                             | International<br>Version              | Description                                                                                                                                                                                        |
|------------------|---------------------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                | ASMD x MARA                                       | Text<br>/Description<br>Matching      | Compare ASMD-KTEXT (service description) vs. MAKT-MAKTX (material description).<br><br>Normalize description strings (remove stop-words, punctuation, upper/lowercase).                            |
| 2                | ASMD x MARA                                       | Unit of<br>Measure<br>Harmonization   | ASMD-MEINS vs. MARA-MEINS (ensure consistency). Must work together with <b>Text/Description Matching</b>                                                                                           |
|                  | Table - MARA<br>Oriented                          | International<br>Version              | Description                                                                                                                                                                                        |
| 1                | MARA                                              | Canonical Key<br>& Core<br>Attributes | Use MATNR (normalized/padded), MTART=DIEN, MEINS, MATKL, BISMT (old material no.). Build canonical keys and compare base UoM, material group, and legacy numbers across systems.                   |
| 2                | MAKT                                              | Text/Description<br>Matching          | Compare short descriptions across languages; pick best language (e.g., EN > FR > DE > ...), normalize text (case, punctuation, stop-words), and apply fuzzy/exact thresholds to detect duplicates. |
| 3                | STXH/STXL                                         | Long-Text<br>Alignment                | Retrieve material long texts (TDOBJECT='MATERIAL', TDNAME=MATNR padded). Normalize and compare paragraphs to consolidate duplicates with different short texts but same detailed content.          |
| 4                | MARM                                              | Unit-of-Measure<br>Harmonization      | Align base/alternate UoMs and conversion factors; deduplicate only if UoM sets are compatible (UMREZ /UMREN); flag conflicts for review. The verification of this table must be combined with      |
| 5                | MEAN                                              | GTIN/EAN<br>Cross-Check               | Use EAN11/GTIN as high-confidence match key (often per UoM). Detect 1:n GTIN-to-material issues and reconcile where GTINs collide across systems.                                                  |
| 8                | AUSP / INOB / CABN<br>/ CAWN / CAWNT (if<br>used) | Classification<br>Fingerprint         | If classification is used, compare class/characteristic values as a strong dedup signal (same class & equal value set higher confidence). Helps separate near-synonyms.                            |
| 9                | EINA / EINE                                       | Vendor Catalog<br>Signals             | Vendor material numbers/descriptions in Info Records can corroborate duplicates (same vendor ref across systems).                                                                                  |

|    |                                             |                                 |                                                                                                                                                                                                                                              |
|----|---------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10 | MVKE                                        | Sales View Consistency          | If sales data exists, use product hierarchy and status as soft features; avoid merging items intentionally separated for commercial reasons.                                                                                                 |
| 11 | MARC                                        | Plant Extension Overlap         | Plant assignments can be used as a weak feature (same service used in same plants) and for post-merge impact checks.                                                                                                                         |
|    |                                             |                                 |                                                                                                                                                                                                                                              |
|    | <b>Table - ASMD Oriented</b>                | <b>International Version</b>    | <b>Description</b>                                                                                                                                                                                                                           |
| 1  | ASMD                                        | Canonical Key & Core Attributes | Use <b>ASNUM</b> (normalized), <b>MEINS</b> , <b>MATKL</b> , ERDAT/AEDAT, LVORM. Build canonical keys and compare base UoM and service group across systems. Compare ASMD-KTEXT (service description) vs. MAK2-MAKTX (material description). |
| 2  | ASMDT                                       | Text/Description Matching       | Compare language-dependent short descriptions ( <b>KTEXT</b> ) across locales; pick a “best language” (e.g., EN ), normalize text (case, punctuation, stop-words), then run exact/fuzzy thresholds to detect duplicates.                     |
| 3  | STXH / STXL                                 | Long-Text Alignment             | Retrieve service long texts (SAPscript <b>TDOBJECT = 'SERV'</b> ; typical TDIDs like <i>GRUN</i> ). Normalize and compare paragraphs to catch duplicates with similar detailed content but differing short texts.                            |
| 6  | AUSP / INOB / CABN / CAWN / CAWNT (if used) | Classification Fingerprint      | When services are classified, compare class/characteristic values (class type for services per your template) as a strong dedup signal—same class & equal value set higher confidence.                                                       |
| 7  | EINA / EINE (optional)                      | Vendor Catalog Signals          | Vendor service numbers/descriptions in Info Records can corroborate duplicates across systems when texts differ or UoMs are inconsistent.                                                                                                    |
| 8  | ASMD / ESSL / EKPO / EKKO                   |                                 | Based on the ASMD entries selected, create the mentioned query to identify the valid Purchase Orders to be considered                                                                                                                        |

#### Deduplication ASMD Table

| Dedup             | Combined | PF2   | WP2 |
|-------------------|----------|-------|-----|
| Total Records     | 10.174   | 9.821 | 353 |
| Unique Records    | 7.811    | 7.523 | 288 |
| Duplicate records | 2.363    | 2.298 | 65  |

## Additional Information

### Extraction/Transformation Methods and File Types

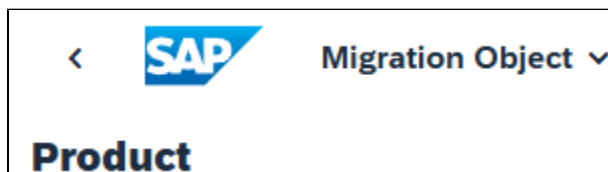
Data is Extracted and Transformed by Syniti ADM, the staging area of the Migration Cockpit is updated.

### Loading Template

| Template | Loading File (.XML)                                                                 |
|----------|-------------------------------------------------------------------------------------|
|          | <a href="#">Source data for Service product.xml</a>                                 |
|          | <a href="#">Source data for Product (1).xml</a>                                     |
|          | <a href="#">Source data for Product - extend existing record with long text.xml</a> |

### Loading Methods

Migration Cockpit has been elected to execute the data loading of Materials Lean Services. The Loading Method has been defined as **Product**.



## Multi-language Requirement

For all Lean Services in the target S/4HANA system, the default description will be maintained in English.

Where available in the source systems (PF2, WP2), additional language-dependent descriptions will also be migrated. This applies to both:

- Service Master records (ASMD)
- Materials-as-Services (MARA)

Data Cleansing is necessary, entries exist for EN however it's content concerns another language.

Migration rules:

- Only languages available and supported in the target S/4HANA system will be migrated.
- If a description exists in a custom or unsupported language key in the source, that language entry will be skipped.
- The migration will preserve the link between the Lean Service material number and each language-specific description.
- Where the same service exists in multiple languages in the source, all valid language versions will be migrated together with the default English text.

This approach ensures that Lean Services are available in multiple languages for purchasing, reporting, and user interaction, while maintaining compliance with the target system's supported language set.

### Languages to be extracted (available on Source Systems)

SAP standard supports all ISO languages, ensure that all standard languages are considered in scope.

### Languages to **don't** be extracted

The Z9 language code represents "Multilingual / Other," which is a generic placeholder rather than a specific language. It does not correspond to a standard ISO language code and therefore cannot be mapped reliably to a target language in the S/4HANA environment. Including Z9 would result in ambiguous or duplicate entries, making data validation, reporting, and translation maintenance inconsistent. To ensure data quality and consistency, records with Z9 will be excluded from the extraction scope.

| International Version | Description          |
|-----------------------|----------------------|
| Z9                    | Multilingual / Other |

## Document Management

N/A.

## Legal Requirement

Minor efforts with taxation are foreseen for some specific countries having specific taxations, the topic is limited to have the tax codes mapping (from Old to New tax code).

## Special Requirements

Processing Type ETL:

- **Transformation (T):** Syniti will be responsible for cleansing, transforming, and merging the data, as well as updating the staging areas of the SAP Migration Cockpit.
- **Extraction (E):** Data will be extracted from at least two source systems. This activity will be performed by Syniti.
- **Loading (L):** The final data load into the target SAP system will be carried out using the standard functionalities of the SAP Migration Cockpit.
  - The decided loading tool is called 'Service Product' and is available on the migration cockpit

### Deduplication Rules

Ensure that Lean Service Materials (stored in MARA and related tables) are unique and free of redundancies prior to migration into S/4HANA. The rules mentioned below validate duplicates across standardized descriptions, language, material group, and units of measure, while also considering long texts for confirmation.

Additionally, unsupported or custom languages (such as Z9) are excluded unless explicitly required, ensuring alignment with SAP standard language configurations. This prevents proliferation of redundant Lean Service materials and supports a harmonized catalog in the target system.

| SY<br>STEM | Ru<br>le<br>ID | Semantic Rule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PF2        | SR<br>01       | Deduplication of Services Master (table ASMD) from PF2 & WP2:<br>- DEDUP 1: Exclude from the deduplication rule services where the Deletion Flag is set ASMD-LOEKZ <> "" (marked for deletion)<br>- DEDUP 2: In case the Short Text (ASMD-KTEXT) + Language Key (ASMD-SPRAS) are identical, this is an indication of a duplicated entry<br>- DEDUP 3: In case the Material Group (ASMD-MATKL) or two or more records are identical, this is an indication of a duplicated entry<br>- DEDUP 4: In case the Base Unit of Measure (ASMD-MEINS) in combination of the Topics 2 & 3 are identical, this is an indication of a duplicated entry<br>- DEDUP 5: In case the Long Text / Additional Descriptions (STXL/STXB) are exactly the same, this is an indication of a duplicated entry                                 |
|            | SR<br>02       | Deduplication of Services Materials (table MARA) from PF2 & WP2:<br>- DEDUP 1: Drop any record technically blocked or marked for deletion in source. Check field MARA-LOEKZ (or equivalent for Lean Services).<br>- DEDUP 2: A duplicate exists if the following four attributes are exactly the same between two records (MAKT-MAKTX / MAKTX-SPRAS / MARA-MATKL / MARM-MEINH)<br>- DEDUP 3: A duplicate exists if the long texts (such as Purchase Order Texts or Basic Texts stored in STXL/STXB) are exactly the same (or at least 98% similar), then borderline duplicates can be promoted to confirmed duplicates.<br>- DEDUP 4: Exclude any records that are only in custom or unsupported languages (e.g., Z9) unless explicitly required by the business.                                                     |
|            | SR<br>03       | Deduplication of Services between Material Master - Service (MARA oriented) X Service Master (ASMD oriented)<br><br>In order to proceed with this step, apply the selection criteria below: <ul style="list-style-type: none"> <li>• <b>If same service exists in both tables (MARA and ASMD):</b> Keep one representation (normally the Material as Lean Service) and retire ASMD.               <ul style="list-style-type: none"> <li>◦ Check using the fields MAKTX and MEINS</li> </ul> </li> <li>• <b>If service exists only in MARA:</b> Retain and convert as Lean Service (if material type = in-scope).</li> <li>• <b>If service exists only in ASMD:</b> Assess usage — migrate as Lean Service Material or exclude if obsolete.</li> <li>• <b>If neither is used in recent years:</b> Exclude.</li> </ul> |

## Frequency of running reports

- Preload Reports
  - Run before every load execution (Mock Loads, Dress Rehearsals, Cutover).
  - Purpose: to validate source-to-target transformations, business rules, and check for data quality issues before pushing into the Migration Cockpit.
  - Typically executed each time you release a wave or object for load.
- Postload Reports
  - Run immediately after each load execution.
  - Purpose: to reconcile and confirm that what was loaded into SAP matches the expected records (counts, key fields, value checks, etc.).
  - Typically executed after every migration cycle (mock, dress rehearsal, final cutover).

## Target Design

The technical design of the target for this conversion approach.

## Value Mappings: Transformation DOMD

The complete file is available on this [LINK](#)

From Service-Material (MARA) to Service-Material (MARA)

| Source Field Information  |                              |               |                                                |                 |                 |          | Transform Rules |                                                                    |                    |                                                                               | Target Field Information |               |       |                                                |                                                 |                |                                    |                                  |                |        |         |                                 |                      |
|---------------------------|------------------------------|---------------|------------------------------------------------|-----------------|-----------------|----------|-----------------|--------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------|--------------------------|---------------|-------|------------------------------------------------|-------------------------------------------------|----------------|------------------------------------|----------------------------------|----------------|--------|---------|---------------------------------|----------------------|
| Sequence<br>Table         | Technical<br>Source<br>Table | Field<br>Name | Technical Source<br>Field                      | Field<br>Format | Field<br>Length | Comments | Mapping<br>Type | Transform Rule<br>or Default Value                                 | Validation<br>Rule | Comments                                                                      | Data<br>load<br>Template | Sheet<br>Name | Group | Field Description                              | Business<br>Description                         | Check<br>Table | Business<br>Mandatory<br>Y/N<br>/C | System<br>Mandatory<br>Y/N<br>/C | Type           | Length | Decimal | SAP<br>Staging<br>Table<br>Name | Sap<br>Field<br>Name |
| MAR - Material Basic Data |                              |               |                                                |                 |                 |          |                 |                                                                    |                    |                                                                               |                          |               |       |                                                |                                                 |                |                                    |                                  |                |        |         | MAR - Material<br>Basic<br>Data |                      |
|                           | MAR                          | MATNR         | Product Number                                 | Text<br>(CHAR)  | 18              | Required |                 |                                                                    |                    | TO BE<br>CONFIRMED                                                            |                          |               |       | Product Number                                 | Material<br>Number                              |                | YES                                | YES                              | Text<br>(CHAR) | 18     |         | S_MAR                           | MATNR                |
|                           | MAR                          | MTART         | Product Type                                   | Text<br>(CHAR)  | 80              | Required | Fixed<br>Value  | Default Value =<br>'ZSER'                                          |                    | Use default<br>value                                                          |                          |               |       | Product Type                                   | Product<br>Type                                 |                | YES                                | YES                              | Text<br>(CHAR) | 80     |         | S_MAR                           | MTART                |
|                           | MAR                          | ATTYP         | Product Category                               | Text<br>(CHAR)  | 80              | Required |                 | Target field is<br>equal to EMPTY                                  |                    |                                                                               |                          |               |       | Product Category                               | Product<br>Category                             |                | YES                                | YES                              | Text<br>(CHAR) | 80     |         | S_MAR                           | ATTYP                |
|                           | MAR                          | SATNR         | Configuration<br>Product for Retail<br>Variant | Text<br>(CHAR)  | 80              |          |                 |                                                                    |                    | N/A                                                                           |                          |               |       | Configuration<br>Product for Retail<br>Variant | Configurati<br>on Product for Retail<br>Variant |                | YES                                | YES                              | Text<br>(CHAR) | 80     |         | S_MAR                           | SATNR                |
|                           | MAR                          | MATKL         | Product Group<br>(material group)              | Text<br>(CHAR)  | 80              | Required | Conversion      | Use the<br>mapping table to<br>apply the proper<br>data conversion |                    | Subjected to<br>Data<br>Conversion                                            |                          |               |       | Product Group                                  | Product<br>Group                                |                | YES                                | YES                              | Text<br>(CHAR) | 80     |         | S_MAR                           | MATKL                |
|                           | MAR                          | MBRSH         | Industry Sector                                | Text<br>(CHAR)  | 80              | Required | Fixed<br>Value  | Default Value =<br>'M'                                             |                    | Use default<br>value                                                          |                          |               |       | Industry Sector                                | Industry<br>Sector                              |                | YES                                | YES                              | Text<br>(CHAR) | 80     |         | S_MAR                           | MBRSH                |
|                           | MAR                          | MAKTX         | Description                                    | Text<br>(CHAR)  | 40              | Required |                 | All texts should<br>be converted to<br>UPPER CASE                  |                    | Copy 1:1 value                                                                |                          |               |       | Description                                    | Description                                     |                | YES                                | YES                              | Text<br>(CHAR) | 40     |         | S_MAR                           | MAKTX                |
|                           | MAR                          | SPRAS         | Language Key                                   | Text<br>(CHAR)  | 80              | Required |                 |                                                                    |                    | Only ISO<br>Languages are<br>allowed (SAP<br>standard)                        |                          |               |       | Language Key                                   | Language<br>Key                                 |                | YES                                | YES                              | Text<br>(CHAR) | 80     |         | S_MAR                           | SPRAS                |
|                           | MAR                          | MEINS         | Base Unit of<br>Measure (ISO<br>Format)        | Text<br>(CHAR)  | 80              | Required | Conversion      | Use the<br>mapping table to<br>apply the proper<br>data conversion |                    |                                                                               |                          |               |       | Base Unit of<br>Measure (ISO<br>Format)        | Base Unit of<br>Measure<br>(ISO<br>Format)      |                | YES                                | YES                              | Text<br>(CHAR) | 80     |         | S_MAR                           | MEINS                |
|                           | MAR                          | AENNR         | Change Number                                  | Text<br>(CHAR)  | 80              |          |                 |                                                                    |                    | N/A                                                                           |                          |               |       | Change Number                                  | Change<br>Number                                |                | NO                                 | NO                               | Text<br>(CHAR) | 80     |         | S_MAR                           | AENNR                |
|                           | MAR                          | REVLV         | Revision Level                                 | Text<br>(CHAR)  | 80              |          |                 |                                                                    |                    | N/A                                                                           |                          |               |       | Revision Level                                 | Revision<br>Level                               |                | NO                                 | NO                               | Text<br>(CHAR) | 80     |         | S_MAR                           | REVLV                |
|                           | MAR                          | EAN11         | GTIN                                           | Text<br>(CHAR)  | 18              |          |                 |                                                                    |                    | N/A                                                                           |                          |               |       | GTIN                                           | GTIN                                            |                | NO                                 | NO                               | Text<br>(CHAR) | 18     |         | S_MAR                           | EAN11                |
|                           | MAR                          | NUMTP         | GTIN Category                                  | Text<br>(CHAR)  | 80              |          |                 |                                                                    |                    | N/A                                                                           |                          |               |       | GTIN Category                                  | GTIN<br>Category                                |                | NO                                 | NO                               | Text<br>(CHAR) | 80     |         | S_MAR                           | NUMTP                |
|                           | MAR                          | SPART         | Division                                       | Text<br>(CHAR)  | 80              |          |                 |                                                                    |                    | Subjected to<br>Data<br>Conversion                                            |                          |               |       | Division                                       | Division                                        |                | NO                                 | NO                               | Text<br>(CHAR) | 80     |         | S_MAR                           | SPART                |
|                           | MAR                          | BISMT         | Old Product<br>Number                          | Text<br>(CHAR)  | 40              |          |                 |                                                                    |                    | <EMPTY><br><br>Since we have<br>a n:1 source<br>the data cannot<br>be updated |                          |               |       | Old Product<br>Number                          | Old<br>Product<br>Number                        |                | NO                                 | NO                               | Text<br>(CHAR) | 40     |         | S_MAR                           | BISMT                |
|                           | MAR                          | PRDHA         | Product Hierarchy                              | Text<br>(CHAR)  | 80              |          |                 |                                                                    |                    | TO CONFIRM                                                                    |                          |               |       | Product Hierarchy                              | Product<br>Hierarchy                            |                | NO                                 | NO                               | Text<br>(CHAR) | 80     |         | S_MAR                           | PRDHA                |
|                           | MAR                          | BRAND_ID      | Brand                                          | Text<br>(CHAR)  | 80              |          |                 |                                                                    |                    | N/A                                                                           |                          |               |       | Brand                                          | Brand                                           |                | NO                                 | NO                               | Text<br>(CHAR) | 80     |         | S_MAR                           | BRAND_ID             |
|                           | MAR                          | XCHPF         | Batch Management<br>Required Ind.              | Text<br>(CHAR)  | 1               |          |                 |                                                                    |                    | N/A                                                                           |                          |               |       | Batch<br>Management<br>Required Ind.           | Batch<br>Managemen<br>t<br>Required<br>Ind.     |                | NO                                 | NO                               | Text<br>(CHAR) | 1      |         | S_MAR                           | XCHPF                |
|                           | MAR                          | MLGUT         | Has Empties                                    | Text<br>(CHAR)  | 1               |          |                 |                                                                    |                    | N/A                                                                           |                          |               |       | Has Empties                                    | Has<br>Empties                                  |                | NO                                 | NO                               | Text<br>(CHAR) | 1      |         | S_MAR                           | MLGUT                |
|                           | MAR                          | DATAB         | Valid From                                     | Date            | 10              |          |                 |                                                                    |                    | Copy 1:1 value                                                                |                          |               |       | Valid From                                     | Valid From                                      |                | NO                                 | NO                               | Date           | 10     |         | S_MAR                           | DATAB                |
|                           | MAR                          | LIQDT         | Deletion Date                                  | Date            | 10              |          |                 |                                                                    |                    | N/A                                                                           |                          |               |       | Deletion Date                                  | Deletion<br>Date                                |                | NO                                 | NO                               | Date           | 10     |         | S_MAR                           | LIQDT                |
|                           | MAR                          | KUNNR         | Competitor                                     | Text<br>(CHAR)  | 80              |          |                 |                                                                    |                    | N/A                                                                           |                          |               |       | Competitor                                     | Competitor                                      |                | NO                                 | NO                               | Text<br>(CHAR) | 80     |         | S_MAR                           | KUNNR                |

|      |               |                                           |               |    |  |  |  |  |                              |  |  |  |                                           |                                             |    |    |               |    |  |        |               |
|------|---------------|-------------------------------------------|---------------|----|--|--|--|--|------------------------------|--|--|--|-------------------------------------------|---------------------------------------------|----|----|---------------|----|--|--------|---------------|
| MARA | NORMT         | Industry Standard Description             | Text (CHAR)   | 18 |  |  |  |  | N/A                          |  |  |  | Industry Standard Description             | Industry Standard Description               | NO | NO | Text (CHAR)   | 18 |  | S_MARA | NORMT         |
| MARA | GROES         | Size/Dimensions                           | Text (CHAR)   | 32 |  |  |  |  | N/A                          |  |  |  | Size/Dimensions                           | Size /Dimensions                            | NO | NO | Text (CHAR)   | 32 |  | S_MARA | GROES         |
| MARA | LABOR         | Laboratory / Design Office                | Text (CHAR)   | 80 |  |  |  |  | N/A                          |  |  |  | Laboratory / Design Office                | Laboratory / Design Office                  | NO | NO | Text (CHAR)   | 80 |  | S_MARA | LABOR         |
| MARA | INHAL         | Net Contents                              | Number (NUMC) | 13 |  |  |  |  | N/A                          |  |  |  | Net Contents                              | Net Contents                                | NO | NO | Number (NUMC) | 13 |  | S_MARA | INHAL         |
| MARA | INHME         | Net Contents Unit (ISO Format)            | Text (CHAR)   | 80 |  |  |  |  | N/A                          |  |  |  | Net Contents Unit (ISO Format)            | Net Contents Unit (ISO Format)              | NO | NO | Text (CHAR)   | 80 |  | S_MARA | INHME         |
| MARA | INHBR         | Gross Content                             | Number (NUMC) | 13 |  |  |  |  | N/A                          |  |  |  | Gross Contens                             | Gross Contens                               | NO | NO | Number (NUMC) | 13 |  | S_MARA | INHBR         |
| MARA | VPREH         | Comparison Price Unit                     | Number (NUMC) | 5  |  |  |  |  | N/A                          |  |  |  | Comparison Price Unit                     | Comparison Price Unit                       | NO | NO | Number (NUMC) | 5  |  | S_MARA | VPREH         |
| MARA | EXTWG         | External Product Group                    | Text (CHAR)   | 80 |  |  |  |  | N/A                          |  |  |  | External Product Group                    | External Product Group                      | NO | NO | Text (CHAR)   | 80 |  | S_MARA | EXTWG         |
| MARA | MTPOS_MARA    | General Item Category Group               | Text (CHAR)   | 80 |  |  |  |  | N/A                          |  |  |  | General Item Category Group               | General Item Category Group                 | NO | NO | Text (CHAR)   | 80 |  | S_MARA | MTPOS_MARA    |
| MARA | BEGRU         | Authorization Group                       | Text (CHAR)   | 4  |  |  |  |  | N/A                          |  |  |  | Authorization Group                       | Authorization Group                         | NO | NO | Text (CHAR)   | 4  |  | S_MARA | BEGRU         |
| MARA | MSTAE         | Cross-Plant Product Status                | Text (CHAR)   | 80 |  |  |  |  | Subjected to Data Conversion |  |  |  | Cross-Plant Product Status                | Cross-Plant Product Status                  | NO | NO | Text (CHAR)   | 80 |  | S_MARA | MSTAE         |
| MARA | MSTDE         | Valid-From Date                           | Date          |    |  |  |  |  | Copy 1:1 value               |  |  |  | Valid-From Date                           | Valid-From Date                             | NO | NO | Date          | 10 |  | S_MARA | MSTDE         |
| MARA | SERLV         | Level of Explicitness for Serial Number   | Text (CHAR)   | 80 |  |  |  |  | N/A                          |  |  |  | Level of Explicitness for Serial Number   | Level of Explicitness for Serial Number     | NO | NO | Text (CHAR)   | 80 |  | S_MARA | SERLV         |
| MARA | QMPUR         | Quality Manag. in Procurement Is Active   | Text (CHAR)   | 1  |  |  |  |  | N/A                          |  |  |  | Quality Manag. in Procurement Is Active   | Quality Manag. in Procurement Is Active     | NO | NO | Text (CHAR)   | 1  |  | S_MARA | QMPUR         |
| MARA | ANIMAL_ORIGIN | Animal Origin                             | Text (CHAR)   | 1  |  |  |  |  | N/A                          |  |  |  | Animal Origin                             | Animal Origin                               | NO | NO | Text (CHAR)   | 1  |  | S_MARA | ANIMAL_ORIGIN |
| MARA | ANP           | ANP Code                                  | Text (CHAR)   | 80 |  |  |  |  | Copy 1:1 value               |  |  |  | ANP Code                                  | ANP Code                                    | NO | NO | Text (CHAR)   | 80 |  | S_MARA | ANP           |
| MARA | BRGEW         | Gross Weight                              | Number (NUMC) | 13 |  |  |  |  | N/A                          |  |  |  | Gross Weight                              | Gross Weight                                | NO | NO | Number (NUMC) | 13 |  | S_MARA | BRGEW         |
| MARA | NTGEW         | Net Weight                                | Number (NUMC) | 13 |  |  |  |  | N/A                          |  |  |  | Net Weight                                | Net Weight                                  | NO | NO | Number (NUMC) | 13 |  | S_MARA | NTGEW         |
| MARA | GEWEI         | Unit of Weight (ISO Format)               | Text          | 80 |  |  |  |  | N/A                          |  |  |  | Unit of Weight (ISO Format)               | Unit of Weight (ISO Format)                 | NO | NO | Text          | 80 |  | S_MARA | GEWEI         |
| MARA | LAENG         | Length                                    | Number (NUMC) | 13 |  |  |  |  | N/A                          |  |  |  | Length                                    | Length                                      | NO | NO | Number (NUMC) | 13 |  | S_MARA | LAENG         |
| MARA | BREIT         | Width                                     | Number (NUMC) | 13 |  |  |  |  | N/A                          |  |  |  | Width                                     | Width                                       | NO | NO | Number (NUMC) | 13 |  | S_MARA | BREIT         |
| MARA | HOEHE         | Height                                    | Number (NUMC) | 13 |  |  |  |  | N/A                          |  |  |  | Height                                    | Height                                      | NO | NO | Number (NUMC) | 13 |  | S_MARA | HOEHE         |
| MARA | MEABM         | Unit for Length /Width/Height(ISO Format) | Text (CHAR)   | 80 |  |  |  |  | N/A                          |  |  |  | Unit for Length /Width/Height(ISO Format) | Unit for Length /Width /Height (ISO Format) | NO | NO | Text (CHAR)   | 80 |  | S_MARA | MEABM         |

|      |                                   |                                               |                              |    |  |  |  |  |                |  |  |  |                                               |                                                      |    |    |                              |    |  |        |                                   |
|------|-----------------------------------|-----------------------------------------------|------------------------------|----|--|--|--|--|----------------|--|--|--|-----------------------------------------------|------------------------------------------------------|----|----|------------------------------|----|--|--------|-----------------------------------|
| MARA | VOLUM                             | Volume                                        | Nu<br>mbe<br>r<br>(NU<br>MC) | 13 |  |  |  |  | N/A            |  |  |  | Volume                                        | Volume                                               | NO | NO | Nu<br>mbe<br>r<br>(NU<br>MC) | 13 |  | S_MARA | VOLUM                             |
| MARA | VOLEH                             | Volume Unit                                   | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Volume Unit                                   | Volume<br>Unit                                       | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | VOLEH                             |
| MARA | CAPAU<br>SE                       | Capacity Usage                                | Nu<br>mbe<br>r<br>(NU<br>MC) | 15 |  |  |  |  | N/A            |  |  |  | Capacity Usage                                | Capacity<br>Usage                                    | NO | NO | Nu<br>mbe<br>r<br>(NU<br>MC) | 15 |  | S_MARA | CAPA<br>USE                       |
| MARA | CHML_<br>CMLN<br>C_RLVN<br>CE_IND | Compliance<br>Relevant                        | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Compliance<br>Relevant                        | Complian<br>ce Relevant                              | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | CHML_<br>CMLN<br>C_RLVN<br>CE_IND |
| MARA | KZKFG                             | Product Is<br>Configurable                    | Text<br>(CH<br>AR)           | 1  |  |  |  |  | N/A            |  |  |  | Product Is<br>Configurable                    | Product Is<br>Configurable                           | NO | NO | Text<br>(CH<br>AR)           | 1  |  | S_MARA | KZKFG                             |
| MARA | BSTME                             | Order Unit of<br>Measure (ISO<br>Format)      | Text<br>(CH<br>AR)           | 80 |  |  |  |  | Copy 1:1 value |  |  |  | Order Unit of<br>Measure (ISO<br>Format)      | Order Unit<br>of Measure<br>(ISO<br>Format)          | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | BSTME                             |
| MARA | EKWSL                             | Purchasing Value<br>Key                       | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Purchasing Value<br>Key                       | Purchasing<br>Value Key                              | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | EKWSL                             |
| MARA | VABME                             | State of Variable<br>Purchase Order<br>Unit   | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | State of Variable<br>Purchase Order<br>Unit   | State of<br>Variable<br>Purchase<br>Order Unit       | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | VABME                             |
| MARA | BMATN                             | Internal Product<br>Number                    | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Internal Product<br>Number                    | Internal<br>Product<br>Number                        | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | BMATN                             |
| MARA | MFRPN                             | Manufacturer Part<br>Number                   | Text<br>(CH<br>AR)           | 40 |  |  |  |  | N/A            |  |  |  | Manufacturer Part<br>Number                   | Manufact<br>er Part<br>Number                        | NO | NO | Text<br>(CH<br>AR)           | 40 |  | S_MARA | MFRPN                             |
| MARA | MFRNR                             | Manufacturer<br>Number                        | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Manufacturer<br>Number                        | Manufact<br>er Number                                | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | MFRNR                             |
| MARA | MPROF                             | Manufacturer Part<br>Profile                  | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Manufacturer Part<br>Profile                  | Manufact<br>er Part<br>Profile                       | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | MPROF                             |
| MARA | TRAGR                             | Transportation<br>Group                       | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Transportation<br>Group                       | Transportat<br>ion Group                             | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | TRAGR                             |
| MARA | MSTAV                             | Cross-Distribution<br>Chain Product<br>Status | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Cross-Distribution<br>Chain Product<br>Status | Cross-<br>Distribution<br>Chain<br>Product<br>Status | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | MSTA<br>V                         |
| MARA | MSTDV                             | Valid From Date for<br>Status                 | Date                         | 10 |  |  |  |  | N/A            |  |  |  | Valid From Date<br>for Status                 | Valid From<br>Date for<br>Status                     | NO | NO | Date                         | 10 |  | S_MARA | MSTDV                             |
| MARA | PMATA                             | Pricing Reference<br>Product                  | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Pricing Reference<br>Product                  | Pricing<br>Reference<br>Product                      | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | PMATA                             |
| MARA | SPROF                             | Pricing Profile for<br>Variants               | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Pricing Profile for<br>Variants               | Pricing<br>Profile for<br>Variants                   | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | SPROF                             |
| MARA | ALLOW<br>PMAT_<br>IGNO            | Variant Price<br>Allowed                      | Text<br>(CH<br>AR)           | 1  |  |  |  |  | N/A            |  |  |  | Variant Price<br>Allowed                      | Variant<br>Price<br>Allowed                          | NO | NO | Text<br>(CH<br>AR)           | 1  |  | S_MARA | ALLO<br>W_PM<br>AT_IG<br>NO       |
| MARA | SOM_C<br>YCLE                     | Billing Cycle                                 | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Billing Cycle                                 | Billing<br>Cycle                                     | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | SOM_<br>CYCLE                     |
| MARA | SOM_C<br>YCLE_R<br>ULE            | Billing Cycle<br>Determination Rule           | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Billing Cycle<br>Determination Rule           | Billing<br>Cycle<br>Determinati<br>on Rule           | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | SOM_<br>CYCLE_<br>RULE            |
| MARA | SOM_T<br>C_SCH<br>EMA             | Assignment<br>Schema                          | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Assignment<br>Schema                          | Assignmen<br>t Schema                                | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | SOM_<br>TC_SC<br>HEMA             |
| MARA | BBTYP                             | Assortment List<br>Type                       | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Assortment List<br>Type                       | Assortment<br>List Type                              | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | BBTYP                             |
| MARA | SERVV                             | Service Agreement                             | Text<br>(CH<br>AR)           | 80 |  |  |  |  | Copy 1:1 value |  |  |  | Service Agreement                             | Service<br>Agreement                                 | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | SERVV                             |
| MARA | MAGRV                             | Product Group:<br>Packaging<br>Materials      | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Product Group:<br>Packaging<br>Materials      | Product<br>Group:<br>Packaging<br>Materials          | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | MAGRV                             |
| MARA | VHIART                            | Packaging Product<br>Type                     | Text<br>(CH<br>AR)           | 80 |  |  |  |  | N/A            |  |  |  | Packaging Product<br>Type                     | Packaging<br>Product<br>Type                         | NO | NO | Text<br>(CH<br>AR)           | 80 |  | S_MARA | VHIART                            |
| MARA | ERGEW                             | Allowed Packaging<br>Weight                   | Nu<br>mbe<br>r<br>(NU<br>MC) | 13 |  |  |  |  | N/A            |  |  |  | Allowed Packaging<br>Weight                   | Allowed<br>Packaging<br>Weight                       | NO | NO | Nu<br>mbe<br>r<br>(NU<br>MC) | 13 |  | S_MARA | ERGEW                             |

|      |            |                                          |               |    |  |  |  |  |     |  |  |  |                                          |                                          |    |    |               |    |  |        |            |
|------|------------|------------------------------------------|---------------|----|--|--|--|--|-----|--|--|--|------------------------------------------|------------------------------------------|----|----|---------------|----|--|--------|------------|
| MARA | ERGEI      | Unit of Allowed Packaging Weight         | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Unit of Allowed Packaging Weight         | Unit of Allowed Packaging Weight         | NO | NO | Text (CH AR)  | 80 |  | S_MARA | ERGEI      |
| MARA | GEWTO      | Excess Weight Tolerance for HU           | Number (NUMC) | 3  |  |  |  |  | N/A |  |  |  | Excess Weight Tolerance for HU           | Excess Weight Tolerance for HU           | NO | NO | Number (NUMC) | 3  |  | S_MARA | GEWTO      |
| MARA | ERVOL      | Allowed Packaging Volume                 | Number (NUMC) | 13 |  |  |  |  | N/A |  |  |  | Allowed Packaging Volume                 | Allowed Packaging Volume                 | NO | NO | Number (NUMC) | 13 |  | S_MARA | ERVOL      |
| MARA | ERVOE      | Unit of Allowed Packaging Volume         | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Unit of Allowed Packaging Volume         | Unit of Allowed Packaging Volume         | NO | NO | Text (CH AR)  | 80 |  | S_MARA | ERVOE      |
| MARA | KZGVH      | Packaging Product Is Closed Packaging    | Text (CH AR)  | 1  |  |  |  |  | N/A |  |  |  | Packaging Product Is Closed Packaging    | Packaging Product Is Closed Packaging    | NO | NO | Text (CH AR)  | 1  |  | S_MARA | KZGVH      |
| MARA | VOLTO      | Excess Volume Tolerance for HU           | Number (NUMC) | 3  |  |  |  |  | N/A |  |  |  | Excess Volume Tolerance for HU           | Excess Volume Tolerance for HU           | NO | NO | Number (NUMC) | 3  |  | S_MARA | VOLTO      |
| MARA | IPRKZ      | Period Indicator for Shelf Life          | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Period Indicator for Shelf Life          | Period Indicator for Shelf Life          | NO | NO | Text (CH AR)  | 80 |  | S_MARA | IPRKZ      |
| MARA | RAUBE      | Storage Conditions                       | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Storage Conditions                       | Storage Conditions                       | NO | NO | Text (CH AR)  | 80 |  | S_MARA | RAUBE      |
| MARA | TEMPB      | Temperature Conditions Indicator         | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Temperature Conditions Indicator         | Temperature Conditions Indicator         | NO | NO | Text (CH AR)  | 80 |  | S_MARA | TEMPB      |
| MARA | BEHVO      | Container Requirements                   | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Container Requirements                   | Container Requirements                   | NO | NO | Text (CH AR)  | 80 |  | S_MARA | BEHVO      |
| MARA | STOFF      | Hazardous Product Number                 | Text (CH AR)  | 40 |  |  |  |  | N/A |  |  |  | Hazardous Product Number                 | Hazardous Product Number                 | NO | NO | Text (CH AR)  | 40 |  | S_MARA | STOFF      |
| MARA | ETIAR      | Label Type                               | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Label Type                               | Label Type                               | NO | NO | Text (CH AR)  | 80 |  | S_MARA | ETIAR      |
| MARA | ETIFO      | Label Form                               | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Label Form                               | Label Form                               | NO | NO | Text (CH AR)  | 80 |  | S_MARA | ETIFO      |
| MARA | WESCH      | Number of Goods Receipt/Issue Slips      | Number (NUMC) | 13 |  |  |  |  | N/A |  |  |  | Number of Goods Receipt/Issue Slips      | Number of Goods Receipt/Issue Slips      | NO | NO | Number (NUMC) | 13 |  | S_MARA | WESCH      |
| MARA | XGCHP      | Indicator: Approved Batch Rec. Required  | Text (CH AR)  | 1  |  |  |  |  | N/A |  |  |  | Indicator: Approved Batch Rec. Required  | Indicator: Approved Batch Rec. Required  | NO | NO | Text (CH AR)  | 1  |  | S_MARA | XGCHP      |
| MARA | MHDHB      | Total Shelf Life                         | Number (NUMC) | 4  |  |  |  |  | N/A |  |  |  | Total Shelf Life                         | Total Shelf Life                         | NO | NO | Number (NUMC) | 4  |  | S_MARA | MHDHB      |
| MARA | MHDRZ      | Minimum Remaining Shelf Life             | Number (NUMC) | 4  |  |  |  |  | N/A |  |  |  | Minimum Remaining Shelf Life             | Minimum Remaining Shelf Life             | NO | NO | Number (NUMC) | 4  |  | S_MARA | MHDRZ      |
| MARA | SLED_BBD   | Indi. for the Shelf Life Expiration Date | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Indi. for the Shelf Life Expiration Date | Indi. for the Shelf Life Expiration Date | NO | NO | Text (CH AR)  | 80 |  | S_MARA | SLED_BBD   |
| MARA | MHDLP      | Storage Percentage                       | Number (NUMC) | 3  |  |  |  |  | N/A |  |  |  | Storage Percentage                       | Storage Percentage                       | NO | NO | Number (NUMC) | 3  |  | S_MARA | MHDLP      |
| MARA | RDMHD      | Rounding Rule for Calculation of SLED    | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Rounding Rule for Calculation of SLED    | Rounding Rule for Calculation of SLED    | NO | NO | Text (CH AR)  | 80 |  | S_MARA | RDMHD      |
| MARA | HNDLCODE   | Handling Indicator                       | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Handling Indicator                       | Handling Indicator                       | NO | NO | Text (CH AR)  | 80 |  | S_MARA | HNDLCODE   |
| MARA | WHMATGR    | Warehouse Product Group                  | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Warehouse Product Group                  | Warehouse Product Group                  | NO | NO | Text (CH AR)  | 80 |  | S_MARA | WHMATGR    |
| MARA | WHSTC      | Warehouse Storage Condition              | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Warehouse Storage Condition              | Warehouse Storage Condition              | NO | NO | Text (CH AR)  | 80 |  | S_MARA | WHSTC      |
| MARA | HUTYP_DFLT | Standard Handling Unit Type              | Text (CH AR)  | 80 |  |  |  |  | N/A |  |  |  | Standard Handling Unit Type              | Standard Handling Unit Type              | NO | NO | Text (CH AR)  | 80 |  | S_MARA | HUTYP_DFLT |

|  |      |            |                                        |               |    |  |  |  |  |  |     |  |  |  |                                        |                                        |    |    |               |    |  |  |        |            |
|--|------|------------|----------------------------------------|---------------|----|--|--|--|--|--|-----|--|--|--|----------------------------------------|----------------------------------------|----|----|---------------|----|--|--|--------|------------|
|  | MARA | SERIAL     | Serial Number Profile                  | Text (CHAR)   | 80 |  |  |  |  |  | N/A |  |  |  | Serial Number Profile                  | Serial Number Profile                  | NO | NO | Text (CHAR)   | 80 |  |  | S_MARA | SERIAL     |
|  | MARA | PILFERABLE | Pilferable                             | Text (CHAR)   | 1  |  |  |  |  |  | N/A |  |  |  | Pilferable                             | Pilferable                             | NO | NO | Text (CHAR)   | 1  |  |  | S_MARA | PILFERABLE |
|  | MARA | HAZMAT     | Relevant for Hazardous Substances      | Text (CHAR)   | 1  |  |  |  |  |  | N/A |  |  |  | Relevant for Hazardous Substances      | Relevant for Hazardous Substances      | NO | NO | Text (CHAR)   | 1  |  |  | S_MARA | HAZMAT     |
|  | MARA | QQTIME     | Quarantine Period                      | Number (NUMC) | 3  |  |  |  |  |  | N/A |  |  |  | Quarantine Period                      | Quarantine Period                      | NO | NO | Number (NUMC) | 3  |  |  | S_MARA | QQTIME     |
|  | MARA | QQTIMEUOM  | Time Unit for Quarantine Period        | Text (CHAR)   | 80 |  |  |  |  |  | N/A |  |  |  | Time Unit for Quarantine Period        | Time Unit for Quarantine Period        | NO | NO | Text (CHAR)   | 80 |  |  | S_MARA | QQTIMEUOM  |
|  | MARA | QGRP       | Quality Inspection Group               | Text (CHAR)   | 80 |  |  |  |  |  | N/A |  |  |  | Quality Inspection Group               | Quality Inspection Group               | NO | NO | Text (CHAR)   | 80 |  |  | S_MARA | QGRP       |
|  | MARA | HUTYP      | Handling Unit Type                     | Text (CHAR)   | 80 |  |  |  |  |  | N/A |  |  |  | Handling Unit Type                     | Handling Unit Type                     | NO | NO | Text (CHAR)   | 80 |  |  | S_MARA | HUTYP      |
|  | MARA | MAXC       | Maximum Capacity                       | Number (NUMC) | 15 |  |  |  |  |  | N/A |  |  |  | Maximum Capacity                       | Maximum Capacity                       | NO | NO | Number (NUMC) | 15 |  |  | S_MARA | MAXC       |
|  | MARA | MAXC_TOL   | Overcapacity Tolerance                 | Number (NUMC) | 3  |  |  |  |  |  | N/A |  |  |  | Overcapacity Tolerance                 | Overcapacity Tolerance                 | NO | NO | Number (NUMC) | 3  |  |  | S_MARA | MAXC_TOL   |
|  | MARA | TARE_VAR   | Variable Tare Weight                   | Text (CHAR)   | 1  |  |  |  |  |  | N/A |  |  |  | Variable Tare Weight                   | Variable Tare Weight                   | NO | NO | Text (CHAR)   | 1  |  |  | S_MARA | TARE_VAR   |
|  | MARA | MAXL       | Max. Pack. Length                      | Number (NUMC) | 15 |  |  |  |  |  | N/A |  |  |  | Max. Pack. Length                      | Max. Pack. Length                      | NO | NO | Number (NUMC) | 15 |  |  | S_MARA | MAXL       |
|  | MARA | MAXDIM_UOM | UoM for Max. Pack. Length (ISO Format) | Text (CHAR)   | 80 |  |  |  |  |  | N/A |  |  |  | UoM for Max. Pack. Length (ISO Format) | UoM for Max. Pack. Length (ISO Format) | NO | NO | Text (CHAR)   | 80 |  |  | S_MARA | MAXDIM_UOM |
|  | MARA | MAXB       | Max. Pack. Width                       | Number (NUMC) | 15 |  |  |  |  |  | N/A |  |  |  | Max. Pack. Width                       | Max. Pack. Width                       | NO | NO | Number (NUMC) | 15 |  |  | S_MARA | MAXB       |
|  | MARA | MAXH       | Max. Pack. Height                      | Number (NUMC) | 15 |  |  |  |  |  | N/A |  |  |  | Max. Pack. Height                      | Max. Pack. Height                      | NO | NO | Number (NUMC) | 15 |  |  | S_MARA | MAXH       |
|  | MARA | RBNRM      | Catalog Profile                        | Text (CHAR)   | 80 |  |  |  |  |  | N/A |  |  |  | Catalog Profile                        | Catalog Profile                        | NO | NO | Text (CHAR)   | 80 |  |  | S_MARA | RBNRM      |
|  | MARA | SSTUF      | Assortment Grade                       | Text (CHAR)   | 80 |  |  |  |  |  | N/A |  |  |  | Assortment Grade                       | Assortment Grade                       | NO | NO | Text (CHAR)   | 80 |  |  | S_MARA | SSTUF      |
|  | MARA | LSTVZ      | Listing Procedure                      | Text (CHAR)   | 80 |  |  |  |  |  | N/A |  |  |  | Listing Procedure                      | Listing Procedure                      | NO | NO | Text (CHAR)   | 80 |  |  | S_MARA | LSTVZ      |
|  | MARA | LDVZL      | Listing Period Start Date              | Date          | 10 |  |  |  |  |  | N/A |  |  |  | Listing Period Start Date              | Listing Period Start Date              | NO | NO | Date          | 10 |  |  | S_MARA | LDVZL      |
|  | MARA | LDBZL      | Listing Period End Date                | Date          | 10 |  |  |  |  |  | N/A |  |  |  | Listing Period End Date                | Listing Period End Date                | NO | NO | Date          | 10 |  |  | S_MARA | LDBZL      |
|  | MARA | LSTFL      | Listing Procedure                      | Text (CHAR)   | 80 |  |  |  |  |  | N/A |  |  |  | Listing Procedure                      | Listing Procedure                      | NO | NO | Text (CHAR)   | 80 |  |  | S_MARA | LSTFL      |
|  | MARA | LDVFL      | Listing Period Start Date              | Date          | 10 |  |  |  |  |  | N/A |  |  |  | Listing Period Start Date              | Listing Period Start Date              | NO | NO | Date          | 10 |  |  | S_MARA | LDVFL      |
|  | MARA | LDBFL      | Listing Period End Date                | Date          | 10 |  |  |  |  |  | N/A |  |  |  | Listing Period End Date                | Listing Period End Date                | NO | NO | Date          | 10 |  |  | S_MARA | LDBFL      |
|  | MARA | VDVZL      | Sales Period Start Date                | Date          | 10 |  |  |  |  |  | N/A |  |  |  | Sales Period Start Date                | Sales Period Start Date                | NO | NO | Date          | 10 |  |  | S_MARA | VDVZL      |
|  | MARA | VDBZL      | Sales Period End Date                  | Date          | 10 |  |  |  |  |  | N/A |  |  |  | Sales Period End Date                  | Sales Period End Date                  | NO | NO | Date          | 10 |  |  | S_MARA | VDBZL      |
|  | MARA | VDVFL      | Sales Period Start Date                | Date          | 10 |  |  |  |  |  | N/A |  |  |  | Sales Period Start Date                | Sales Period Start Date                | NO | NO | Date          | 10 |  |  | S_MARA | VDVFL      |
|  | MARA | VDBFL      | Sales Period End Date                  | Date          | 10 |  |  |  |  |  | N/A |  |  |  | Sales Period End Date                  | Sales Period End Date                  | NO | NO | Date          | 10 |  |  | S_MARA | VDBFL      |

|  |      |        |                                          |               |    |          |  |  |  |            |  |  |  |  |                                          |                                          |     |     |               |    |  |                                      |        |
|--|------|--------|------------------------------------------|---------------|----|----------|--|--|--|------------|--|--|--|--|------------------------------------------|------------------------------------------|-----|-----|---------------|----|--|--------------------------------------|--------|
|  | MARA | WAUSM  | Delivery Unit of Measure (ISO Format)    | Text (CH AR)  | 80 |          |  |  |  | N/A        |  |  |  |  | Delivery Unit of Measure (ISO Format)    | Delivery Unit of Measure (ISO Format)    | NO  | NO  | Text (CH AR)  | 80 |  | S_MARA                               | WAUSM  |
|  | MARA | WVRKM  | Sales Unit of Measure (ISO Format)       | Text (CH AR)  | 80 |          |  |  |  |            |  |  |  |  | Sales Unit of Measure (ISO Format)       | Sales Unit of Measure (ISO Format)       | NO  | NO  | Text (CH AR)  | 80 |  | S_MARA                               | WVRKM  |
|  | MARA | WMAAB  | ABC Indicator                            | Text (CH AR)  | 80 |          |  |  |  | N/A        |  |  |  |  | ABC Indicator                            | ABC Indicator                            | NO  | NO  | Text (CH AR)  | 80 |  | S_MARA                               | WMAAB  |
|  | MARA | WBKLA  | Valuation Class                          | Text (CH AR)  | 80 |          |  |  |  |            |  |  |  |  | Valuation Class                          | Valuation Class                          | NO  | NO  | Text (CH AR)  | 80 |  | S_MARA                               | WBKLA  |
|  | MARA | WHERL  | Country/Region of Origin                 | Text (CH AR)  | 80 |          |  |  |  | N/A        |  |  |  |  | Country/Region of Origin                 | Country /Region of Origin                | NO  | NO  | Text (CH AR)  | 80 |  | S_MARA                               | WHERL  |
|  | MARA | WHERR  | Region of Origin                         | Text (CH AR)  | 80 |          |  |  |  | N/A        |  |  |  |  | Region of Origin                         | Region of Origin                         | NO  | NO  | Text (CH AR)  | 80 |  | S_MARA                               | WHERR  |
|  | MARA | WEKGR  | Purchasing Group                         | Text (CH AR)  | 80 |          |  |  |  |            |  |  |  |  | Purchasing Group                         | Purchasing Group                         | NO  | NO  | Text (CH AR)  | 80 |  | S_MARA                               | WEKGR  |
|  | MARA | BWSCL  | Source of Supply                         | Text (CH AR)  | 80 |          |  |  |  |            |  |  |  |  | Source of Supply                         | Source of Supply                         | NO  | NO  | Text (CH AR)  | 80 |  | S_MARA                               | BWSCL  |
|  | MARA | TAKLV  | Tax Classification                       | Text (CH AR)  | 80 |          |  |  |  |            |  |  |  |  | Tax Classification                       | Tax Classification                       | NO  | NO  | Text (CH AR)  | 80 |  | S_MARA                               | TAKLV  |
|  | MARA | WLADG  | Loading Group                            | Text (CH AR)  | 80 |          |  |  |  | N/A        |  |  |  |  | Loading Group                            | Loading Group                            | NO  | NO  | Text (CH AR)  | 80 |  | S_MARA                               | WLADG  |
|  | MARA | WBWSP  | Valuation Margin                         | Number (NUMC) | 6  |          |  |  |  | N/A        |  |  |  |  | Valuation Margin                         | Valuation Margin                         | NO  | NO  | Number (NUMC) | 6  |  | S_MARA                               | WBWSP  |
|  | MARA | PSTATQ | Indicator: Quality                       | Text (CH AR)  | 1  |          |  |  |  | N/A        |  |  |  |  | Indicator: Quality                       | Indicator: Quality                       | NO  | NO  | Text (CH AR)  | 1  |  | S_MARA                               | PSTATQ |
|  | MARA | PSTATV | Indicator: Sales                         | Text (CH AR)  | 1  |          |  |  |  | TO CONFIRM |  |  |  |  | Indicator: Sales                         | Indicator: Sales                         | NO  | NO  | Text (CH AR)  | 1  |  | S_MARA                               | PSTATV |
|  | MARA | PSTATL | Indicator: Storage                       | Text (CH AR)  | 1  |          |  |  |  | N/A        |  |  |  |  | Indicator: Storage                       | Indicator: Storage                       | NO  | NO  | Text (CH AR)  | 1  |  | S_MARA                               | PSTATL |
|  | MARA | PSTATE | Indicator: Purchasing                    | Text (CH AR)  | 1  |          |  |  |  | TO CONFIRM |  |  |  |  | Indicator: Purchasing                    | Indicator: Purchasing                    | NO  | NO  | Text (CH AR)  | 1  |  | S_MARA                               | PSTATE |
|  |      |        |                                          |               |    |          |  |  |  |            |  |  |  |  |                                          |                                          |     |     |               |    |  |                                      |        |
|  |      |        | MAKT - Material Descriptions             |               |    |          |  |  |  |            |  |  |  |  |                                          |                                          |     |     |               |    |  | MAKT - Material Descriptions         |        |
|  | MAKT | MATNR  | Product Number                           | Text (CH AR)  | 18 | Required |  |  |  |            |  |  |  |  | Product Number                           | Material Number                          | YES | YES | Text (CH AR)  | 18 |  | S_MAKT                               | MATNR  |
|  | MAKT | SPRAS  | Language Key                             | Text (CH AR)  | 2  | Required |  |  |  |            |  |  |  |  | Language Key                             | Language Key                             | YES | YES | Text (CH AR)  | 2  |  | S_MAKT                               | SPRAS  |
|  | MAKT | MAKTX  | Product Description                      | Text (CH AR)  | 40 | Required |  |  |  |            |  |  |  |  | Product Description                      | Product Description                      | YES | YES | Text (CH AR)  | 40 |  | S_MAKT                               | MAKTX  |
|  |      |        |                                          |               |    |          |  |  |  |            |  |  |  |  |                                          |                                          |     |     |               |    |  |                                      |        |
|  |      |        | MARM - Units of Measure for Material     |               |    |          |  |  |  |            |  |  |  |  |                                          |                                          |     |     |               |    |  | MARM - Units of Measure for Material |        |
|  | MARM | PRODC  | Product Number                           | Text (CH AR)  | 80 | Required |  |  |  |            |  |  |  |  | Product Number                           | Material Number                          | YES | YES | Text (CH AR)  | 80 |  | S_MARM                               | MATNR  |
|  | MARM | MEINH  | Alternative Unit of Measure (ISO Format) | Text (CH AR)  | 80 | Required |  |  |  |            |  |  |  |  | Alternative Unit of Measure (ISO Format) | Alternative Unit of Measure (ISO Format) |     | YES | Text (CH AR)  | 80 |  | S_MARM                               | MEINH  |
|  | MARM | UMREN  | Denominator for Conversion to Base Unit  | Number (NUMC) | 5  | Required |  |  |  |            |  |  |  |  | Denominator for Conversion to Base Unit  | Denominator for Conversion to Base Unit  | YES | YES | Number (NUMC) | 5  |  | S_MARM                               | UMREN  |
|  | MARM | UMREZ  | Numerator for Conversion to Base Unit    | Number (NUMC) | 5  | Required |  |  |  |            |  |  |  |  | Numerator for Conversion to Base Unit    | Numerator for Conversion to Base Unit    | YES | YES | Number (NUMC) | 5  |  | S_MARM                               | UMREZ  |



|                                  |            |                      |                |    |           |  |  |  |  |  |                      |                      |     |     |                |    |                                     |            |
|----------------------------------|------------|----------------------|----------------|----|-----------|--|--|--|--|--|----------------------|----------------------|-----|-----|----------------|----|-------------------------------------|------------|
| MLAN                             | TAXM5      | Tax Classification 5 | Text (CHAR)    | 80 |           |  |  |  |  |  | Tax Classification 5 | Tax Classification 5 | NO  | NO  | Text (CHAR)    | 80 | S_MLAN                              | TAXM5      |
| MLAN                             | TATYP6     | Tax Category 6       | Text (CHAR)    | 80 |           |  |  |  |  |  | Tax Category 6       | Tax Category 6       | NO  | NO  | Text (CHAR)    | 80 | S_MLAN                              | TATYP6     |
| MLAN                             | TAXM6      | Tax Classification 6 | Text (CHAR)    | 80 |           |  |  |  |  |  | Tax Classification 6 | Tax Classification 6 | NO  | NO  | Text (CHAR)    | 80 | S_MLAN                              | TAXM6      |
| MLAN                             | TATYP7     | Tax Category 7       | Text (CHAR)    | 80 |           |  |  |  |  |  | Tax Category 7       | Tax Category 7       | NO  | NO  | Text (CHAR)    | 80 | S_MLAN                              | TATYP7     |
| MLAN                             | TAXM7      | Tax Classification 7 | Text (CHAR)    | 80 |           |  |  |  |  |  | Tax Classification 7 | Tax Classification 7 | NO  | NO  | Text (CHAR)    | 80 | S_MLAN                              | TAXM7      |
| MLAN                             | TATYP8     | Tax Category 8       | Text (CHAR)    | 80 |           |  |  |  |  |  | Tax Category 8       | Tax Category 8       | NO  | NO  | Text (CHAR)    | 80 | S_MLAN                              | TATYP8     |
| MLAN                             | TAXM8      | Tax Classification 8 | Text (CHAR)    | 80 |           |  |  |  |  |  | Tax Classification 8 | Tax Classification 8 | NO  | NO  | Text (CHAR)    | 80 | S_MLAN                              | TAXM8      |
| MLAN                             | TATYP9     | Tax Category 9       | Text (CHAR)    | 80 |           |  |  |  |  |  | Tax Category 9       | Tax Category 9       | NO  | NO  | Text (CHAR)    | 80 | S_MLAN                              | TATYP9     |
| MLAN                             | TAXM9      | Tax Classification 9 | Text (CHAR)    | 80 |           |  |  |  |  |  | Tax Classification 9 | Tax Classification 9 | NO  | NO  | Text (CHAR)    | 80 | S_MLAN                              | TAXM9      |
|                                  |            |                      |                |    |           |  |  |  |  |  |                      |                      |     |     |                |    |                                     |            |
| CLASS - Class Header Data (KLAH) |            |                      |                |    |           |  |  |  |  |  |                      |                      |     |     |                |    | CLASS - Class Header Data (KLAH)    |            |
| CLASS                            | PRODUCT    | Product Number       | Text (CHAR)    | 18 | Mandatory |  |  |  |  |  | Product Number       | Material Number      | YES | YES | Text (CHAR)    | 18 | S_CLASS                             | MATNR      |
| CLASS                            | CLASS      | Class                | Text (CHAR)    | 80 | Mandatory |  |  |  |  |  | Class                |                      | YES | YES | Text (CHAR)    | 80 | S_CLASS                             | CLASS      |
| CLASS                            | CLASSTYPE  | Class Type           | Text (CHAR)    | 80 | Mandatory |  |  |  |  |  | Class Type           |                      | YES | YES | Text (CHAR)    | 80 | S_CLASS                             | CLASSTYPE  |
|                                  |            |                      |                |    |           |  |  |  |  |  |                      |                      |     |     |                |    |                                     |            |
| CHARACT - Characteristic (CABN)  |            |                      |                |    |           |  |  |  |  |  |                      |                      |     |     |                |    | S_CHARACTER - Characteristic (CABN) |            |
| CHARACT                          | PRODUCT    | Product Number       | Text (CHAR)    | 80 | Mandatory |  |  |  |  |  | Product Number       | Material Number      | YES | YES | Text (CHAR)    | 80 | S_CHARACTER                         | MATNR      |
| CHARACT                          | CLASS      | Class                | Text (CHAR)    | 80 | Mandatory |  |  |  |  |  | Class                |                      | YES | YES | Text (CHAR)    | 80 | S_CHARACTER                         | CLASS      |
| CHARACT                          | CLASSTYPE  | Class Type           | Text (CHAR)    | 80 | Mandatory |  |  |  |  |  | Class Type           |                      | YES | YES | Text (CHAR)    | 80 | S_CHARACTER                         | CLASSTYPE  |
| CHARACT                          | ATNAM      | Characteristic Name  | Text (CHAR)    | 80 | Mandatory |  |  |  |  |  | Characteristic Name  |                      | YES | YES | Text (CHAR)    | 80 | S_CHARACTER                         | ATNAM      |
| CHARACT                          | POSNR      | Item                 | Text (CHAR)    | 3  |           |  |  |  |  |  | Item                 |                      | NO  | NO  | Text (CHAR)    | 3  | S_CHARACTER                         | POSNR      |
| CHARACT                          | VALUE_CHAR | Character Value      | Text (CHAR)    | 70 |           |  |  |  |  |  | Character Value      |                      | NO  | NO  | Text (CHAR)    | 70 | S_CHARACTER                         | VALUE_CHAR |
| CHARACT                          | VALUE_NUMC | Numeric Value        | Numeric (NUMC) | 16 |           |  |  |  |  |  | Numeric Value        |                      | NO  | NO  | Numeric (NUMC) | 16 | S_CHARACTER                         | VALUE_NUMC |
| CHARACT                          | VALUE_DATE | Date                 | Date           |    |           |  |  |  |  |  | Date                 |                      | NO  | NO  | Date           | 10 | S_CHARACTER                         | VALUE_DATE |
| CHARACT                          | VALUE_TIME | Time                 | Time           |    |           |  |  |  |  |  | Time                 |                      | NO  | NO  | Time           | 8  | S_CHARACTER                         | VALUE_TIME |
| CHARACT                          | VALUE_CURR | Currency Value       | Numeric (NUMC) | 23 |           |  |  |  |  |  | Currency Value       |                      | NO  | NO  | Numeric (NUMC) | 23 | S_CHARACTER                         | VALUE_CURR |



## Loading Sequence and Dependencies

| S eq | Object / Task                                  | SAP Tables/Config                     | Tool / Load Object                                                 | Key Data Checks                                            | Notes/Risks                                                     |
|------|------------------------------------------------|---------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------|
| 1    | CONFIG: Company Codes, Plants, Storage Locs(?) | T001, T001K, T001W, T001L             | SPRO config; not migrated via MM object                            | Unique codes, timezone /currency, address completeness.    | Changing valuation level later is disruptive.                   |
| 2    | CONFIG: Define Material Types & Number Ranges  | T134, T134M, T134G, NRIV              | SPRO config                                                        | No overlaps; external ranges open if legacy codes kept.    | Misaligned MTART causes posting failures and governance issues. |
| 3    | CONFIG: Units of Measure & ISO Codes           | T006, T006A, T006I                    | SPRO config                                                        | Dimensional consistency; no duplicate ISO codes.           | Bad UoMs break conversions and pricing.                         |
| 4    | CONFIG: Material Groups / Product Hierarchy /  | T023/T023T, T179 /T179T, TBWEXTMATGRP | SPRO config (hierarchies); master data via Material load if needed | Trees complete, no orphans; unique keys.                   | Hierarchy changes post-load cascade to SD/MM reporting.         |
| 11   | DATA LOADING: Materials Basic Data             | MARA, MAKT, MARM...                   | Migration Cockpit – Material                                       | Error-free import; sampling in MM03; duplicates prevented. | Use a small but representative subset.                          |

## Data Cleansing

All data cleansing should take place in the data source system as defined in this document, unless system limitations prevent it.

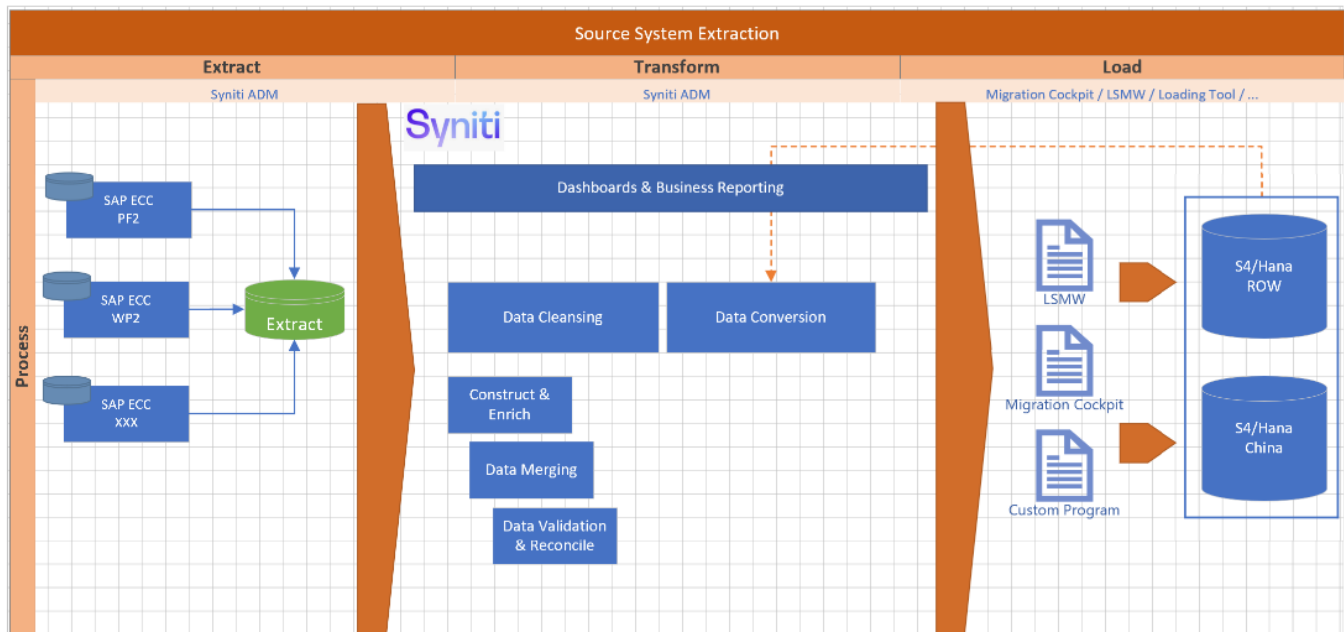
If data cleansing is managed outside of the source system (e.g. Syniti Migrate, 3rd Party Vendor), the necessary documentation must be produced and appended to this deliverable for sign-off.

| ID  | Criticality | Error Message/Report Description     | Rule                                                                     | Output | Source System |
|-----|-------------|--------------------------------------|--------------------------------------------------------------------------|--------|---------------|
| 001 | High        | Remove Duplicated Entries - Services | Remove duplicates based on Service Description + UoM + Service Group (?) |        | PF2 / WP2     |

|     |        |                                                                      |                                                                                                                                                                                                                                                                                                                           |  |           |
|-----|--------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------|
| 002 | High   | Remove Duplicated Entries - Materials                                | <p>Check for materials with same Long/Short Description</p> <p>Check Old Material Number field</p> <p>Check Materials with same Manufacturer Part Number</p> <p>Check Source List/PIR for identical set ups</p> <p>Check BOMs for identical components</p> <p>Where duplicates found, check if either has no activity</p> |  | PF2 / WP2 |
| 003 | Medium | Validation of Service Group, UoM, and active status in target config | Validate existence of Service Group, UoM, and active status in target config                                                                                                                                                                                                                                              |  | PF2 / WP2 |
| 004 | High   | English description missing or EN description not English language   | <p>All materials require English description by default, so need to be provided if missing. Current EN descriptions not in English language need to be translated.</p> <p>The field details for description are the following:</p> <p>Field Name / Data Element / Domain: MAKTX</p>                                       |  | PF2 / WP2 |
| 005 | High   | Description format                                                   | Material descriptions must adhere to S4 standardization so no special characters, and must not exceed character limit                                                                                                                                                                                                     |  | PF2 / WP2 |
| 006 | High   | UoM alignment                                                        | All material UoMs to adhere to S4 standardization. Confirmation regarding EA /PC format.                                                                                                                                                                                                                                  |  | PF2 / WP2 |

## Conversion Process

The high-level process is represented by the diagram below:

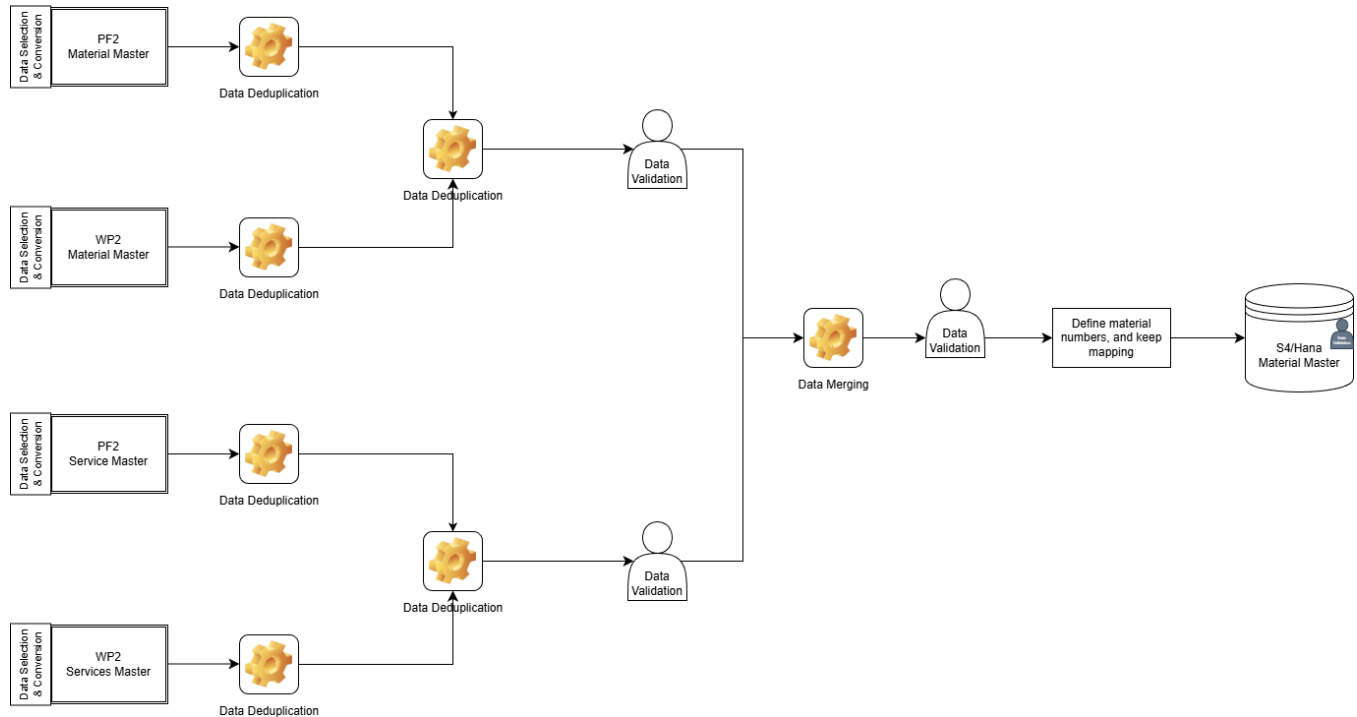


## Data Privacy and Sensitivity

N/A

## Data Merging / Data Consolidation

The data merging is restricted to the Material Types **Z720 / ZB20 / ZDIE** being Deduplicated/Merged into ZSER in combination with the Service Master.



## Extraction

The agreed Relevancy criteria is applied to the extracted records to identify the records that are applicable for the Target loads

### Extraction Run Sheet

| Req # | Requirement Description                                                                                                                                                                                                                                                                                                                 | Team Responsible |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 001   | Do not extract records where ASMD-MATKL (Material Group) is set as out of scope                                                                                                                                                                                                                                                         | Syniti Team      |
| 002   | Do not extract records where ASMD-MLANG (Main Language) is set as out of scope                                                                                                                                                                                                                                                          | Syniti Team      |
| 003   | Do not extract records where ASMD-BKLAS (Valuation Class) is set as out of scope                                                                                                                                                                                                                                                        | Syniti Team      |
| 004   | Do not extract records where ASMD-ASBGR (Service Group) is set as out of scope                                                                                                                                                                                                                                                          | Syniti Team      |
| 005   | Extract all Services that are NOT set as ASMD-LVORM = X (record deleted)                                                                                                                                                                                                                                                                | Syniti Team      |
| 006   | All Services that have been created on the last 36 months are relevant to be migrated                                                                                                                                                                                                                                                   |                  |
| 007   | All Services (defined as services) that have a Purchase Order created in the last 6 months or has a goods receipt on the last 6 months, must be included                                                                                                                                                                                | Syniti Team      |
| 008   | All Services that are marked for Deletion should be excluded                                                                                                                                                                                                                                                                            | Syniti Team      |
| 009   | Additional data selection based on Purchase Order<br><br>1. Pass ASMD.ASNUM to ESLL.SRVPOS and get ESLL.PACKNO<br>2. Pass ESLL.PACKNO to ESLH.PACKNO and get ESLH.HPACKNO<br>3. Pass ESLH.HPACKNO to EKPO.PACKNO, to get PO document number for the Service Number<br>4. EKPO.AEDAT should ne on the last 3 Years AND EKPO.LOEKZ <> 'X' | Syniti Team      |

## Selection Screen

| Selection Ref Screen | Parameter Name | Selection Type | Requirement | Value to be entered/set |
|----------------------|----------------|----------------|-------------|-------------------------|
|                      |                |                |             |                         |
|                      |                |                |             |                         |
|                      |                |                |             |                         |
|                      |                |                |             |                         |

## Data Collection Template (DCT)

Target Ready Data Collection Template will be created for data with exception of some fields which require transformation as mentioned in the transformation rule.

### DCT Rules

| Field Name | Field Description | Rule |
|------------|-------------------|------|
|            |                   |      |
|            |                   |      |
|            |                   |      |
|            |                   |      |

## Extraction Dependencies

| Item # | Step Description | Team Responsible |
|--------|------------------|------------------|
|        |                  |                  |
|        |                  |                  |
|        |                  |                  |
|        |                  |                  |

## Transformation

The Target fields are mapped to the applicable Legacy field that will be its source, this is a 3-way activity involving the Business, Functional team and Data team. This identifies the transformation activity required to allow to make the data Target ready:

1. Perform value mapping and data transformation rules.
  - a. Legacy values are mapped to the to-be values (this could include a default value)
  - b. Values are transformed according to the rules defined in
2. Prepare target-ready data in the structure and format that is required for loading via prescribed Load Tool. This step also produces the load data ready for business to perform Pre-load Data Validation

## Transformation Run Sheet

| Item # | Step Description              | Team Responsible    |
|--------|-------------------------------|---------------------|
| 1      | Obtain Sign-off from Business | SyWay S2P Data Team |

|   |                                                      |                     |
|---|------------------------------------------------------|---------------------|
| 3 | Review and Validate Error and Preload Reports        | SyWay S2P Data Team |
|   | All Preload and Postload reports are available here: |                     |
| 4 | Generate Load Files                                  | SyWay S2P Data Team |

## Transformation Rules

| Rule # | Source system  | Source Table | Source Field | Source Description                       | Target System | Target Table | Target Field | Target Description                       | Transformation Logic                                                                                    |
|--------|----------------|--------------|--------------|------------------------------------------|---------------|--------------|--------------|------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 001    | PF2 - MATERIAL | MARA         | MATNR        | Product Number                           | S4/HANA       | S_MARA       | MATNR        | Product Number                           | Generate a new material code and keep the mapping of Old Material and New Material in a dedicated table |
| 002    | PF2 - MATERIAL | MARA         | ATTYP        | Product Category                         | S4/HANA       | S_MARA       | ATTYP        | Product Category                         | Apply Data Conversion from OLD to NEW value. The 1:1 relation is expected.                              |
| 003    | PF2 - MATERIAL | MARA         | SATNR        | Configuration Product for Retail Variant | S4/HANA       | S_MARA       | SATNR        | Configuration Product for Retail Variant | Apply Data Conversion from OLD to NEW value. The 1:1 relation is expected.                              |
| 004    | PF2 - MATERIAL | MARA         | MATKL        | Product Group                            | S4/HANA       | S_MARA       | MATKL        | Product Group                            | Apply Data Conversion from OLD to NEW value. The 1:1 relation is expected.                              |
| 005    | PF2 - MATERIAL | MARA         | MBRSH        | Industry Sector                          | S4/HANA       | S_MARA       | MBRSH        | Industry Sector                          | Apply Data Conversion from OLD to NEW value. The 1:1 relation is expected.                              |
| 006    | PF2 - MATERIAL | MARA         | SPRAS        | Language Key                             | S4/HANA       | S_MARA       | SPRAS        | Language Key                             | Apply Data Conversion from OLD to NEW value. The 1:1 relation is expected.                              |
| 007    | PF2 - MATERIAL | MARA         | MEINS        | Base Unit of Measure (ISO Format)        | S4/HANA       | S_MARA       | MEINS        | Base Unit of Measure (ISO Format)        | Apply Data Conversion from OLD to NEW value. The 1:1 relation is expected.                              |
| 008    | PF2 - MATERIAL | MARA         | NUMTP        | GTIN Category                            | S4/HANA       | S_MARA       | NUMTP        | GTIN Category                            | Apply Data Conversion from OLD to NEW value. The 1:1 relation is expected.                              |
| 009    | PF2 - MATERIAL | MARA         | SPART        | Division                                 | S4/HANA       | S_MARA       | SPART        | Division                                 | Apply Data Conversion from OLD to NEW value. The 1:1 relation is expected.                              |

## Transformation Mapping

| Mapping Table Name       | Mapping Table Description                                    |
|--------------------------|--------------------------------------------------------------|
| <b>Material Number</b>   | Mapping of legacy Material Number to target system value     |
| <b>Material Type</b>     | Mapping of legacy Material Types to target system value      |
| <b>Material Group</b>    | Mapping of legacy Material Groups to target system value     |
| <b>Product Hierarchy</b> | Mapping of legacy Product Hierarchies to target system value |
| <b>Language Key</b>      | Mapping of legacy Language Key to target system value        |
| <b>Unit of Measure</b>   | Mapping of legacy Unit of Measure to target system value     |

## Transformation - Special Requirements

**Custom Fields** - to be identified the usage of those and whether they will be moved into S4/Hana

Tables: MARA / MAKT

| Legacy Table-Field | Data Type | Length | Description                           |
|--------------------|-----------|--------|---------------------------------------|
| MARA-ZEINR         | CHAR      | 22     | Document number (without DMS)         |
| MARA-ZEIAR         | CHAR      | 3      | Document type (without DMS)           |
| MARA-ZEIVR         | CHAR      | 2      | Document version (without DMS)        |
| MARA-ZEIFQ         | CHAR      | 4      | Page format of document (without DMS) |
| MARA-ZSORT1        | CHAR      | 10     | Sort 1                                |
| MARA-ZSORT2        | CHAR      | 10     | Sort 2                                |
| MARA-ZSORT3        | CHAR      | 10     | Sort 3                                |
| MARA-ZSORT4        | CHAR      | 10     | Sort 4                                |
| MARA-ZSORT5        | CHAR      | 10     | Sort 5                                |
| MARA-ZCOLOR        | CHAR      | 6      | Color code                            |
| MARA-ZFIEL1        | CHAR      | 10     | With SCE MATY                         |
| MARA-ZFIEL2        | CHAR      | 10     | Material description in MF50          |
| MARA-ZFIEL3        | CHAR      | 10     | Field 3 for further usage             |
| MARA-ZFIEL4        | CHAR      | 10     | Field 4 for further usage             |
| MARA-ZFIEL5        | CHAR      | 10     | Field 5 for further usage             |
| MAKT-ZZM_TXTLG     | CHAR      | 186    | Material long text                    |

**Custom Unit of Measures:** to be identified the usage of those and whether they will be moved into S4/Hana

|     |     |                  |                 |
|-----|-----|------------------|-----------------|
| YI  | YI  | Yellowness index | (no dimensions) |
| YR  | YR  | Years            | Time            |
| ZKI | ZKI | product content  | (no dimensions) |
| ZKZ | ZKZ | % per day        | (no dimensions) |
| ZSA | ZSA | shore A          | (no dimensions) |
| ZSD | ZSD | shore D          | (no dimensions) |

## Data Mapping: Account Group

| Account Group |                           |                            |
|---------------|---------------------------|----------------------------|
| Source System | OLD: Legacy Account Group | NEW: S4/Hana Account Group |
| PF2           | DIEN                      | ZSER                       |
| PF2           | Z710                      | ZSER                       |
| PF2           | Z720                      | ZSER                       |
| PF2           | Z732                      | ZSER                       |
| PF2           | ZB10                      | ZSER                       |
| PF2           | ZB20                      | ZSER                       |
| PF2           | ZESE                      | ZSER                       |
| PF2           | ZFS1                      | ZSER                       |
| PF2           | ZPSE                      | ZSER                       |
| PF2           | ZU10                      | ZSER                       |
| PF2           | ZU20                      | ZSER                       |
|               |                           |                            |
| WP2           | DIEN                      | ZSER                       |
| WP2           | ZDIE                      | ZSER                       |

\* some materials were originally created under type ZNLA (e.g., electricity). However, these must be converted to type ZSER. An exception list table should be created to capture all relevant materials, ensuring they are flagged as in-scope for migration.

## Transformation Dependencies

List the steps that need to occur before transformation can commence

| Item # | Step Description                                                             | Team Responsible    |
|--------|------------------------------------------------------------------------------|---------------------|
| 1      | Ensure tables are available to be read by Syniti                             | SyWay S2P Data Team |
| 2      | Value Mappings are according to the latest design - <List of Value Mappings> | SyWay S2P Data Team |
| 3      | Mapping Tables must be properly updated                                      | Syensqo Data Team   |

## Pre-Load Validation

### Project Team

### Completeness

| Task                      | Action                                                                                                                                                      |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Verify Record Count       | SyWay S2P Data Team to verify that the total number of relevant records to be migrated equal to the total number of records in the Preload and Load Sheets. |
| Mandatory Fields          | Check mandatory fields for completeness                                                                                                                     |
| Field Format              | Validate field formats (text length, data types)                                                                                                            |
| Service Group and UOM     | Confirm Service Group and UoM exist in target system                                                                                                        |
| Duplicated Records        | Check for duplicates before load                                                                                                                            |
| Description Multilanguage | Identify whether some examples are being properly loaded. Take few examples to be checked according to the data volume purchased.                           |

### Accuracy

| Task                 | Action                                                                                                                                                                                                                                               |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description          | Check whether the description matches the with the same value from Legacy System                                                                                                                                                                     |
| Legacy Code          | Check whether the Legacy code is maintained as expected. The rule is valid for all legacy systems.                                                                                                                                                   |
| UOM Maintained       | Check whether the Unit of Measure was respected                                                                                                                                                                                                      |
| Conversion Accuracy  | SyWay S2P Data Team to verify that all fields below meet pass the checks:<br><ol style="list-style-type: none"><li>1. Mandatory Fields</li><li>2. Field and Value Mapping Correctness</li><li>3. Null Checks</li><li>4. Text Length Checks</li></ol> |
| Review Error Reports | Review and correct the errors. Achieve a zero-error record count as much as possible. Raise defects for data remediated and requiring a correction in the source data.                                                                               |

### Business

## Completeness

| Task                | Action                                                                                                                           |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Verify Record Count | Business Data Owner/s to verify that the total number of relevant records from the Preload / Postload / Load sheets are the same |
|                     |                                                                                                                                  |
|                     |                                                                                                                                  |

## Accuracy

| Task                | Action                                                                                                                             |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Conversion Accuracy | Business Data Owner/s to verify that all the data in the load table/file is accurate as per endorsed transformation/mapping rules. |
|                     |                                                                                                                                    |
|                     |                                                                                                                                    |

## Load

The load process includes:

1. Execute the automated data load into target system using load tool or product the load file if the load must be done manually
2. Once the data is loaded to the target system, it will be extracted and prepared for Post Load Data Validation

## Load Run Sheet

| Item # | Step Description                                                                    | Team Responsible    |
|--------|-------------------------------------------------------------------------------------|---------------------|
| 001    | Go to <Load Tool>                                                                   | SyWay S2P Data Team |
| 002    | Load 3 records for < > to validate if data is loaded successfully without errors    | SyWay S2P Data Team |
| 003    | Load 3 records for < > to validate if data is loaded successfully without errors    | SyWay S2P Data Team |
| 004    | Proceed with full load if steps 2 and 3 are validated                               | SyWay S2P Data Team |
| 005    | The data is saved into the staging areas of Migration Cockpit                       | SyWay S2P Data Team |
| 006    | Data Load is executed by Migration Cockpit respecting the proper sequence           | SyWay S2P Data Team |
| 007    | Validate few records loaded by accessing standard transactions from S/4HNA eg. MM03 | SyWay S2P Data Team |
| 008    | Generate post load report if step 5 is validated                                    | SyWay S2P Data Team |

## Load Phase and Dependencies

N/A

## Configuration

List the Configurations required before loading can commence

| Item # | Configuration Item         |
|--------|----------------------------|
| 001    | Company Codes (T001-BUKRS) |
| 002    | Plants (T024-WERKS)        |

|     |                                                                     |
|-----|---------------------------------------------------------------------|
| 003 | Material Group (T023-MATKL)                                         |
| 004 | EAN Category (MARA-NUMTP)                                           |
| 005 | Unit of Measures (T006-MSEHI)<br><br>Volume Unit<br><br>Weight Unit |
| 006 | Division (MARA-SPART)                                               |
| 007 | Lab / Office (MARA-LABOR)                                           |
| 008 | Authorization Group (MARA-BEGRU)                                    |
| 009 | Product Allocation (MARA-KOSCH)                                     |
| 010 | Product Hierarchy (MARA-PRDHA)                                      |
| 012 | Material Status (MARA-MSTAE)                                        |
| 013 | General Item Category Group (MTPOS_MARA)                            |
| 014 | Dangerous Goods Indicator Profile (MARA-PROFL)                      |
| 015 | Dangerous Goods Packaging Status (MARA-DG_PACK_STATUS)              |
| 016 | Packaging Code (MARA-PACKCODE)                                      |
| 017 | ANP Code - Brazil (MARA-ANP)                                        |
| 018 | Material Type (MARA-MTART)                                          |

## Conversion Objects

| Object # | Preceding Object Conversion Approach |
|----------|--------------------------------------|
|          |                                      |
|          |                                      |
|          |                                      |

## Error Handling

Errors encountered during extraction, transformation, or load will be logged in the project's Defect Management tool (JIRA). Each error will be classified (Critical/High/Medium/Low), assigned to the responsible team (Data, Functional, or Technical), and resolved through re-extraction, mapping updates, or re-load as required. All corrections and re-runs will be tracked until closure. The table below depicts some possible system errors for this data object during data load. All data load error is to be logged as defect and managed within the Defect Management

| Error Type                        | Error Description                                                                                     | Action Taken                                                                                                                    |
|-----------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Extraction Error</b>           | Missing records due to incorrect filters (e.g., wrong client MANDT or exclusion by mistake).          | Validate extraction queries; re-run extraction; compare counts with expected totals; log defect if mismatch persists.           |
| <b>Transformation Error</b>       | Value mapping not found (e.g., UoM, Material Group, Tax Code, Language Z9).                           | Update mapping tables; reprocess failed records; raise defect for missing mappings.                                             |
| <b>Data Quality Error</b>         | Invalid or missing mandatory fields (e.g., no English description, MAKTX > 40 chars, UoM misaligned). | Correct source data or apply cleansing rules; reload corrected records; document remediation.                                   |
| <b>Deduplication Conflict</b>     | Same Service/Material exists in MARA and ASMD, or duplicates detected in descriptions/UoMs.           | Apply deduplication rules; retain canonical record; mark duplicates as excluded; raise defect for business decision if unclear. |
| <b>Load Error</b>                 | Migration Cockpit rejects records (template format error, number range collision, missing config).    | Correct load file; align with configuration (e.g., Material Type/Number Range); reload subset; log defect.                      |
| <b>Post-Load Validation Error</b> | Count mismatch between source and target, or long-texts /language entries missing.                    | Execute reconciliation report; reload missing records; document exceptions; raise defect for sustained inconsistencies.         |

## Post-Load Validation

## Project Team

### Completeness

| Task         | Action                                                      |
|--------------|-------------------------------------------------------------|
| Verify Count | Check record count                                          |
|              | Verify random samples in S/4 using transaction AC03.        |
|              | Ensure data appears in standard search helps (e.g., ML81N). |
|              | Log any mismatches or errors for remediation.               |

### Accuracy

| Task        | Action                                                                                                                                                     |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Verify Logs | Check if there is data that failed to load and perform the necessary actions (e.g. register as post load issue or attempt to load the record again, etc.). |
|             |                                                                                                                                                            |
|             |                                                                                                                                                            |
|             |                                                                                                                                                            |

## Business

### Completeness

| Task         | Action                                                                                                                                                    |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                                                                                                                                                           |
| Verify Count | Download Post Load Reports from dspMigrate and verify that the record count loaded in the target S/4 HANA is the same count as of the endorsed load file. |
|              |                                                                                                                                                           |

### Accuracy

| Task                | Action                                                                                                                                     |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Conversion Accuracy | Verify that the Material data in target S/4 HANA were loaded correctly via dspMigrate post load reports or standard reports from S/4 HANA. |
|                     |                                                                                                                                            |
|                     |                                                                                                                                            |

## Syniti Reports

| #   | Topic                                                                | Jira Ticket | Creation Date | Resolution Date |  |
|-----|----------------------------------------------------------------------|-------------|---------------|-----------------|--|
| 001 | Total Number of Records (RAW) in WP2 and QP2                         |             |               |                 |  |
| 003 | Total Number of Records after applying data selection in WP2 and QP2 |             |               |                 |  |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |  |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| 004 | Reports per Eligibility Reason <ul style="list-style-type: none"> <li>▪ Included and reason</li> <li>▪ Excluded and reason</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |
| 005 | Create a report with the following eligibility reason, and should be provided the elected materials:<br><br>IsNew6M: New materials created in the past 6 months<br>HasSO3Y: Sales Order created in the past 3 Years<br>HasPO3Y: Purchase Order created in the past 3 Years<br>HasPP3Y: Production Document created in the past 3 Years<br>HasOpenPO: Open Purchase Order<br>HasOpenSO: Open Sales Order<br>HasOpenPP: Open Production Order<br>IsObsoleteText: Obsolete Text (OBS)<br>HasNoInScopePlant: Has NO In Scope Plant<br>ExcludeByMSTAE: Excluded by Material Status<br>ExcludedByLOEKZ: Excluded by Deletion Indicator |  |  |  |  |

To be decided what to do with the Z Fields below:

| Source System | Source Table | Source Field | Long Description                           | Expectation                                    |
|---------------|--------------|--------------|--------------------------------------------|------------------------------------------------|
| PF2           | ASMD         | ZZMBISMT     | This fields regards the Old Service Number | To be decided what to do with the source field |

## Open Questions

| #   | Topic                                                                                                                                                                                                                                                                                                             | Jira Ticket                                         | Creation Date | Resolution Date | Solution provided | Status |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------|-----------------|-------------------|--------|
| 001 | PF2-020: Please confirm the usage of field ASMD-ZZMBISMT and whether it should be included in the Data Migration to the target system.                                                                                                                                                                            | PDM-622<br><del>PDM-600</del>                       | 19 Sept 2025  |                 |                   |        |
| 002 | PF2-020: confirm the usage of field MARA-ZZM_TXTLG and whether it should be included in the Data Migration to the target system.                                                                                                                                                                                  | PDM-622<br><del>PDM-601</del><br><del>PDM-600</del> | 19 Sept 2025  |                 |                   |        |
| 003 | For the Data Selection, we are currently considering ALL Service Category (ASMD-ASTYP) as being relevant to be used (including the ones marked as OLD),                                                                                                                                                           | PDM-622<br><del>PDM-602</del><br><del>PDM-600</del> | 19 Sept 2025  |                 |                   |        |
| 004 | TARGET SYSTEM: Inform the Number Ranges in MDS for the proposed per Material Type                                                                                                                                                                                                                                 | PDM-622                                             | 23 Sept 2025  |                 |                   |        |
| 005 | S2P-DATA: Multiple tickets consolidated in a unique one                                                                                                                                                                                                                                                           | PDM-622                                             | 22 Sept 2025  |                 |                   |        |
| 006 | The field ASMD-ZZMBISMT regards the Old Service Number. Pending a decision of what has to be done with this source field                                                                                                                                                                                          | PDM-622                                             | 23 Sept 2025  |                 |                   |        |
| 007 | Some of the items are currently classified as Services (ASMD), however they could in fact be non-stockable materials. If that's the case, the Business can be involved to decide which material type is most appropriate to be used.<br><br>For the moment, we keep them as they are until further clarification. | PDM-691                                             | 02 Oct 2025   |                 |                   |        |
| 008 | Action from Data Cleansing team is needed (already mentioned by John); some Materials and Services have the Local Language (IT, ES, PT, DE etc) defined as ENGLISH                                                                                                                                                | PDM-691                                             | 02 Oct 2025   |                 |                   |        |

# Key Assumptions

- Master Data Standard (MDS) is up to date as on the date of documenting this conversion approach and data load.

## See also

## Change log

| Version                 | Published                 | Changed By               | Comment |
|-------------------------|---------------------------|--------------------------|---------|
| <b>CURRENT (v. 369)</b> | <b>Nov 20, 2025 09:12</b> | <b>BUOSI-ext, Angelo</b> |         |
| v. 368                  | Nov 18, 2025 15:25        | BUOSI-ext, Angelo        |         |
| v. 367                  | Nov 13, 2025 08:54        | BUOSI-ext, Angelo        |         |
| v. 366                  | Oct 30, 2025 09:18        | BUOSI-ext, Angelo        |         |
| v. 365                  | Oct 21, 2025 10:43        | BUOSI-ext, Angelo        |         |
| v. 364                  | Oct 21, 2025 10:43        | BUOSI-ext, Angelo        |         |
| v. 363                  | Oct 20, 2025 10:43        | BUOSI-ext, Angelo        |         |
| v. 362                  | Oct 20, 2025 10:42        | BUOSI-ext, Angelo        |         |
| v. 361                  | Oct 17, 2025 13:53        | BUOSI-ext, Angelo        |         |
| v. 360                  | Oct 17, 2025 13:36        | BUOSI-ext, Angelo        |         |

[Go to Page History](#)

## Workflow history

| Title                             | Last Updated By | Updated | Status |
|-----------------------------------|-----------------|---------|--------|
| There are no pages at the moment. |                 |         |        |

## Workflow history

This view shows the 5 most recent entries. The complete workflow log is available from the 'Document Activity' menu item.

| From Jun 20, 2025 to Nov 20, 2025 | Actor             | Type | Activity                     | Version |
|-----------------------------------|-------------------|------|------------------------------|---------|
|                                   | BUOSI-ext, Angelo | Edit | updated the page at 11:14 am |         |
|                                   | BUOSI-ext, Angelo | Edit | created the page at 10:23 am |         |