CNV-2019 Materials - Basic Data View

Status	Approved
Owner	HANCOCK-ext, John BUOSI-ext, Angelo MADHOK-ext, Jasleen SLOAN-ext, Anthony
Stakeholders	

Purpose

The purpose of this document is to define the conversion approach to create Materials - Basic Data View in S/4 HANA.

Conversion Scope

The scope of this document covers the approach for converting active Materials - Basic Data View from Legacy Source Systems into S/4HANA following the Materials Master Data Design Standard.

From the current system landscape, Material data exists separately in the legacy systems (PF2 and WP2), with potential discrepancies in both organizations. Harmonization and validation are required to ensure accurate and consolidated data in S/4HANA. While PF2 and WP2 serve as source systems, extensive mapping and transformation logic will be necessary to produce properly formatted load templates in line with the target design.

We will carry out the following steps:

1) Establish a detailed set of relevancy rules for materials by consulting with the Business, Functional and Integration teams

2) Identify all duplicate materials in the Legacy systems with the help of tools developed by Syniti, and subsequently cleanse or merge the data

3) Analyse all current Material Types in Legacy and set the mapping for S4H accordingly. Where it is not possible for a one to one mapping between types we will work with the business to identify the correct mapping on a material level.

4) We will carry out cleansing tasks where needed across all material fields (for example, material descriptions and languages)

5) We will provide value mapping tables where needed for S4H compliance or where standardization is required (for example, Units of Measure)

6) We will provide detailed transformation rules for Syniti, working with our Functional and Integration teams

Relevancy Rules

REGULAR MATERIALS

1. All materials created in the previous 6 months will be included unless flagged for deletion
2. All Material Types will be considered unless they are on the Exclusion list as follows: Material Types PROD (PF2 & WP2), ZIMM, ZIRT (PF2), ZINT (WP2) to be excluded. Also Maintenance Assemblies to be excluded (MTypes Z750 (PF2), ZIBA (WP2)).
3. Material Types ZUNB, ZBOM, ZPRC (WP2) will be included regardless of activity (unless flagged for deletion).
4. For Services we will include materials where MARA.MTART = ZDIE (WP2) or Z710, Z720, Z732, ZB20 (PF2). We will also include materials where MARA.MEINS = PRT or LE, or where MARA.MTPOS_MARA = LEIS.
5. We will only include materials that are extended to Plants currently in scope, according to the Enterprise Structure (excluding ZPRC material type as these do not require plant extension). If any material has no valid extensions, to any in scope plants, but open transactions/stock exist within these corresponding in scope plants, then we will include these materials as part of relevancy.
6. We will include for migration all materials that have activity over the previous 48 months for non ZIND/ZABF materials, or 60 months for ZIND /ZABF materials:
    a. For procurement data use EKKO/EKPO tables where EKKO.LOEKZ = "" (blank) EKPO.LOEKZ = "" (blank) and use EKPO/AEDAT for date range.
    b. For sales data use VBAK/VBAP tables
    c. For work order data use AUFK/AFKO/AFPO tables. Check date using AUFK.ERDAT. This applies to the following Order Categories only, Process Orders (AUFK.AUTYP = 40) and Maintenance Orders (AUFK.AUTYP = 30) where AUFK.LOEKZ = "" (blank).
    d. Valid PIRs and Source List (this includes Not Deleted/Validity Date not expired/In scope Purchasing Orgs and Plants based on Enterprise Structure) Check tables EINA/EINE/EORD. Check EORD.NOTKZ is showing as not blocked. Check that SL date (EORD. BDATU) has not expired. Check that PIR dates, (EINA.LIFBI) and (EINE.PRDAT), have not expired.
7. Additionally, we can check material movements by querying MKPF/MSEG tables for the last 48 months for non ZIND/ZABF materials and 60 months for ZIND/ZABF materials.
8. We will include for migration all materials that have open documents including the following:
    a. Open PO where (EKPO.EREKZ 'X') and (EKKO.BSTYP = F) and STO where (EKPO.ELIKZ 'X'), (EKKO.BSTYP = F) and (EKKO. BSART = UB/UBNI).
    b. Open contracts and scheduling agreements where (EKKO.KDATE has not expired) and (EKKO.BSTYP = K)
    c. Open SO. VBUK.GBSTK = ('A','B') VBUK.VBTYP = C
    d. Open WO. Use AUFK for checking open Process orders (AUFK.AUTYP = 40) and Maintenance Orders (AUFK.AUTYP=30). Link field AUFK.OBJNR to JEST.OBNR to get status codes not equal to TECO AND JEST.INACT 'X'.
9. Have current stock/open inventory
    a. For Open Inventory use the following tables:

MARD

MKOL (Consignment stock)

MSKA (Sales Order stock)

MSLB (Special stock)

MSPR (Project stock)

10. We will include BOM data for materials in scope using tables: MAST/STKO/STPO. We will include all Production and Plant Maintenance BOMs and their related components. MAST data will include BOM Usage (STLAN) 1 (Production) & 4 (Plant Maintenance). STKO data will include BOM Category STKO.STLTY = E (Equipment), F (Functional Location) & M (Material). Exclude inactive BOMs (STKO.STLST = 02). All BOM components will be included in relevancy regardless of activity (unless flagged for deletion). Exclude any deleted records STKO. LOEKZ, STKO.LKENZ= X, STPO.LKENZ = X.
11. Materials with Deletion Flags will be excluded unless appearing in the following open transactions:
    a. Open PO/STO
    b. Open contracts and scheduling agreements
    c. Open SO
    d. Open WO
12. Deletion Flags (Table/Field) are as follows: MARA.LVORM = 'X' MARA.MSTAE = Z4, ZZ (PF2 system) Z0 (WP2 system) MARA.MSTAV = 51
13. Materials with the word 'OBSOLETE' or 'DELETED' contained within the Short Description will be excluded. Also excluded are Materials where Short Description contains '**OBS', '**OBS**', '**OBS***', '*OBS*', '*OBS**', '***OBS***'
14. Include ZIND/ZABF materials with Purchase Requisition for the last 60 months. Check table EBAN. Check for validity date EBAN.ERDAT. Check EBAN.BSTYP = B. Check that EBAN.LOEKZ = "" (blank). Check valid Plant according to the Enterprise Structure.
15. Include non ZIND/ZABF materials with Purchase Requisition for the last 48 months. Check table EBAN. Check for validity date EBAN.ERDAT . Check EBAN.BSTYP = B. Check valid Purchase Org/Plant according to the Enterprise Structure
16. Include all materials with PLIR (Planned Independent Requirements). Check table PBIM/PBED for materials PBIM.MATNR. Check PBIM. LOEVR 'D'. Check PBIM.WERKS for in scope Plants.
17. Include all materials with planned orders for external procurement. Check table PLAF. Check date PLAF.PSTTR for previous 4 years activity. Check for special procurement in field PLAF.SOBES = 0.

List of source systems and approximate number of records

Source	Scope	Source Approx No. of Records	Target System	Target Approx No. of Records
PF2,WP2	The Material Master Records will be extracted or collected via DCT. Any additional data that need to be created to support the new design may be added in the DCT. A data review and standardization will be done across all Info Records in the DCT.	1,200,000	S4H	260,000
PF2,WP2	Service master records currently reside in the ASMD table, totaling approximately 38,000 for PF2-020 and 900 for WP2.	39,528 (PF2 38,644 and WP2 884)	S4H	4,475 (PF2 4,171 and WP2 304)

Additional Information

MDS Documents

MDS Link	

Multi-language Requirement

Languages to be extracted (available on Source Systems)

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

Material Master will have a default description available in English.
Multi language is supported for Materials. Login via a different language will show the description displayed in the logon language if the language key is maintained.

- Core languages: EN - English, FR - French, IT - Italian and ZH - Mandarin.
- Additional languages: PT - Portuguese, DE - German, ES - Spanish
- Additional Supplier languages that are possible: PL - Polish, JA - Japanese, KO - Korean, FI - Finnish, BG - Bulgarian, RU - Russian, TH- Thai, ZF - Chinese traditional, SK - Slovak, Z9 - Brazil Portuguese.

Document Management

Not Applicable

Legal Requirement

Not Applicable

Special Requirements

Not Applicable

Target Design

This section defines the structure and configuration of the target system in SAP S/4HANA. It specifies how each target field is designed, including data types, field lengths, and business rules, ensuring alignment between functional requirements and technical implementation for the conversion process.

The technical design of the target for this conversion approach.

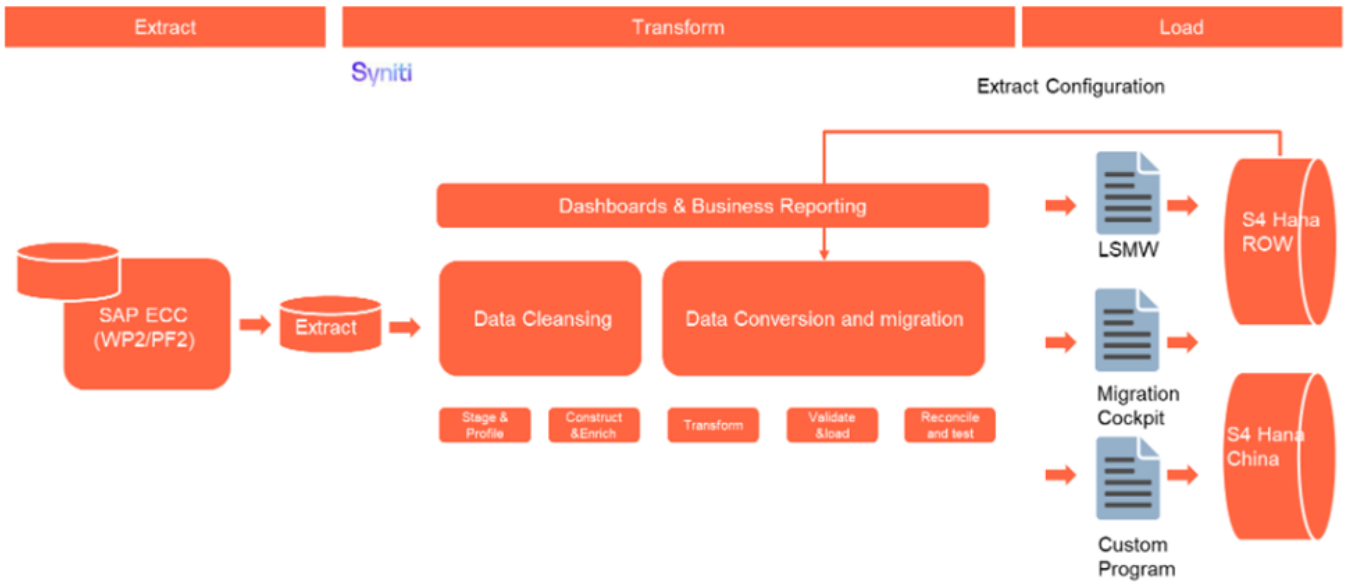
Sequence	Table	Technical Field	Field Description	Field Format	Field Length	Requirement
001	MARA	MATNR	Material Number	Text (CHAR)	18	Required
002	MARA	MBRSH	Industry Sector	Text (CHAR)	1	Required
003	MAKT	MAKTX	Description	Text (CHAR)	40	Required
004	MAKT	SPRAS	Language Key	Text (CHAR)	2	Default to 'EN'
005	MARA	MTART	Material Type	Text (CHAR)	4	Required
006	MARA	MEINS	Base Unit of Measure (ISO Format)	Text (CHAR)	3	Required
007	MARA	MATKL	Material Group	Text (CHAR)	9	Required
008	MARA	BISMT	Old Material Number	Text (CHAR)	40	Required
012	MARA	SPART	Division	Text (CHAR)	2	Required
013	MARA	PRDHA	Product Hierarchy	Text (CHAR)	18	Conditional
014	MARA	MSTAE	Cross-Plant Product Status	Text (CHAR)	2	Conditional
015	MARA	MSTDE	Valid-From Date	Date		Conditional
017	MARA	MTPOS_MARA	General Item Category Group	Text (CHAR)	4	Required
018	MARA	BEGRU	Authorization Group	Text (CHAR)	4	Required
019	MARA	BRGEW	Gross Weight	Number (NUMC)	13,3	Conditional
020	MARA	NTGEW	Net Weight	Number (NUMC)	13,3	Conditional
021	MARA	GEWEI	Unit of Weight (ISO Format)	Text (CHAR)	3	Conditional
022	MARA	VOLUM	Volume	Number (NUMC)	13,3	Conditional
023	MARA	VOLEH	Volume Unit	Text (CHAR)	3	Conditional
024	MARA	GROES	Size/Dimensions	Text (CHAR)	32	Conditional
025	MARA	EAN11	GTIN	Text (CHAR)	18	Conditional
026	MARA	NUMTP	GTIN Category	Text (CHAR)	2	Conditional
027	MARA	RMATP	Ref Material for Packaging	Text (CHAR)	40	Conditional
028	MARA	MAGRV	Material Group: Packaging Materials	Text (CHAR)	4	Conditional
029	MARA	NORMT	Industry Standard Description	Text (CHAR)	18	Conditional
031	MARA	WRKST	Basic Material	Text (CHAR)	48	Conditional
032	MARA	CHML_CMPLNC_RLVNC_IND	Chemical Compliance Relevance Indicator	Text (CHAR)	1	Required

Data Cleansing

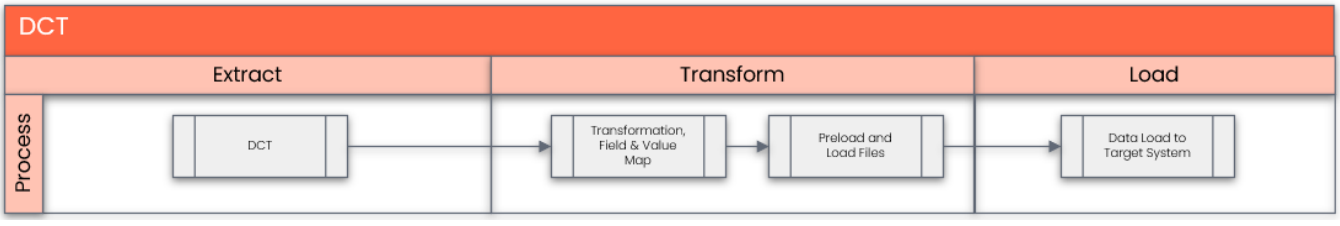
ID	Criticality	Error Message/Report Description	Rule	Output	Source System	Team Responsible
2019-001	C1	English description missing or ~~EN description not English language~~	All materials require English description by default, so need to be provided if missing.		PF2/WP2	Syniti/Data Team
2019-002	C1	Description format	Material descriptions must adhere to S4 standardization so no special characters etc and must not exceed character limit. Refer to 'Informal Words' document (Special Characters tab):		PF2/WP2	Syniti/Data Team
2019-003	C1	UoM alignment	Check that all material UoMs adhere to S4 ISO standard, refer to UoM mapping table		PF2/WP2	Syniti/Data Team
2019-004	C1	Check Gross and Net Weights	Check that Gross Weight >= Net		PF2/WP2	Syniti
2019-005	C1	Verify overlaps OR duplicated descriptions between ASMD /MARA	Verify for overlaps / duplications between: ASMDT-ASMD_TEXT (Service Master Description – EN) MAKT-MAKTX (Material Description – EN) Compare records on the same system and cross system for English language		PF2/WP2	Data Team
2019-006	C1	Validation Reports	Validation Reports to be built			Syniti

Conversion Process

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



The high level process for Classes that will be captured in a DCT are represented by the diagram below:



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Data Privacy and Sensitivity
Not Applicable

Extraction

The source for Basic data for Materials is PF2 & WP2. This will be extracted by Syniti based on the Relevancy criteria.

Extraction Run Sheet

Req #	Requirement Description	Team Responsible
1	Extract Material Master data (MARA) from PF2 and WP2 ECC systems according to the defined *Relevancy Rules* (scope by Material Type, and Activity).	Syniti
2	Validate the extracted data volumes against ECC totals to ensure completeness before applying any filtering (count check per Material Type and per Plant).	Syniti
3	Apply exclusion criteria (e.g. deletion flags, obsolete status).	Syniti
4	Include recent transactional linkage (e.g., materials used in open PO, SO, or movements) within last 5 years for indirect /waste materials and 4 years for all others.	Syniti
5	Validate UoM conversions and ensure all Base Units (MEINS) exist in UoM ISO mapping table.	Syniti/Data Team
6	Generate Google Sheet report pre-populated with PF2 and WP2 extracted data for Business validation	Syniti/Data Team

Selection Screen

Selection Ref Screen	Parameter Name	Selection Type	Requirement	Value to be entered/set
Not Applicable				

Data Collection Template (DCT)

Materials & Service Master

MARA - General Material Master Data (client-level basic material data)						
MARA	MATNR	CHAR	18	Material Number	mandatory for sheet	Material Number A key that uniquely identifies the product. For a numeric field add leading zeros.
MARA	MTART	CHAR	4	Material Type	mandatory for sheet	Material Type All ZPRC materials will map to ZBAS Material Type regardless of Material Group. Check to see if any materials are components in a Production BOM, and if so then set Material Type to be ZDIR instead of using mapping. Use Value Mapping table for Material Types. This maps ECC Material Group to the proposed S4H Material Type.
MARA	MATKL	CHAR	9	Material Group		Material Group Key that you use to group together several products or services with the same attributes, and to assign them to a particular product group.

MARA	MBRSH	CHAR	1	Industry Sector		Industry Sector Key that specifies the branch of industry to which the product is assigned. Default to 'C' (Chemical Industry)
MAKT	MAKTX	CHAR	40	Material Description (Short Text) LANGUAGE EN	mandatory for sheet	Description* Text that describes the product in more detail. Note: You can maintain additional descriptions for languages other than those provided on the 'Basic Data' sheet.
MAKT	SPRAS	LANG	2	Language Key	mandatory for sheet	Language Key Default to 'EN'
MARA	MEINS	UNIT	3	Base Unit of Measure	mandatory for sheet	Base Unit of Measure (ISO Format)* Unit of measure in which stocks of the product are managed. The system converts all the quantities you enter in other units of measure (alternative units of measure) to the base unit of measure. Note: define your alternative units of measure in sheet 'Alternative Unit of Measure'.
MARA	EAN11	CHAR	18	International Article Number (EAN/UPC)		EAN The GTIN on the Basic Data sheet always relates to the base unit of measure. Note: if you have additional GTIN's for this unit please enter them on the Additional GTIN sheet. The GTIN entered here is always the Main GTIN. With internal number assignment, you enter the GTIN category but not a GTIN.
MARA	NUMTP	CHAR	2	Category of International Article Number		EAN Category The EAN category defines the following attributes of the corresponding EAN: Type/method of number assignment (internal and/or external number assignment) and details as to whether alphanumerical EANs are allowed Check-digit algorithm that checks whether a check digit is required Prefix (for perishables EANs) Length of the EAN.
MARA	SPART	CHAR	2	Division		Division A way of grouping products, or services. The system uses divisions to determine the sales areas and the business areas for a product, or service. Please maintain the division for all sales relevant products.
MARA	BISMT	CHAR	18	Old Material Number		Old Material Number Number under which you have managed the product so far or still manage it, for example, in another system or in a card index. The maximum length of field Old Material Number is identical with the defined length for material numbers in your system.
MARA	PRDHA	CHAR	18	Product Hierarchy		Product Hierarchy Alphanumeric character string for grouping together products by combining different characteristics. It is used for analyses and price determination.
MARA	NORMT	CHAR	18	Industry Standard Description		Industry Standard Description Description of the product in accordance with the appropriate industry standard (such as ANSI or ISO). This field is purely for information.
MARA	GROES	CHAR	40	Size /Dimensions		Size/Dimensions Text field that you can use as you like, for example, to record the size or dimensions of the product. The data you enter is merely for information and is not used by the system.
MARA	MTPOS_MARA	CHAR	4	General Item Category Group		General Item Category Group Material grouping that helps the system to determine item categories during sales document processing.
MARA	BEGRU	CHAR	4	Authorization Group		Authorization Group The authorization group enables you to protect access to certain objects.
MARA	MSTAE	CHAR	2	Cross-Plant Material Status		Cross-Plant Material Status The product status determines how a product is handled in different applications and in business operations (for example, purchasing, products planning, usage in bills of material ..). If a product has a product status, the system will issue either a warning or an error message (depending on which status you have chosen) if the product is used. Note: The cross-plant product status restricts the usability of the product for all plants. Please see further information in the migration object documentation under Mapping instructions.

MARA	MSTDE	DATS	8	Date from Which the Material Status Is Valid		Valid-From Date Date from which the cross-plant product status is valid.
MARA	ANP	NUMC	9	ANP Code (Brazil Localization)		ANP Code For Brazil only ! Identifies the products that are controlled by the Brazilian Oil Agency.
MARA	BRGEW	QUAN	15	Gross Weight		Gross Weight Gross weight expressed in the unit of weight specified by you in the Unit of weight field. The system can use the gross weight at a later stage, depending on what kind of capacity check you run, to check storage bin capacity for warehouse management purposes.
MARA	NTGEW	QUAN	15	Net Weight		Net Weight Net weight expressed in the unit of weight specified by you in the Unit of weight field.
MARA	GEWEI	UNIT	3	Weight Unit		Unit of Weight (ISO Format) Unit referring to the gross weight or net weight of the product. If a product is created with sales data, the field unit of weight gets mandatory. Please provide an entry in this field or a default unit of weight is defined in product groups settings.
MARA	VOLUM	QUAN	15	Volume		Volume Space that the product occupies per unit of volume. The volume refers to the unit specified in the "Volume unit" field. The volume and its unit always refer to the base unit of measure.
MARA	VOLEH	UNIT	3	Volume Unit		Volume Unit If you specify a volume, you have to enter the corresponding volume unit here.
MARA	MAGRV	CHAR	4	Material Group: Packaging Materials		Material Group added using value mapping table: This will be added for materials with ZLEI/ZLEH/ZLER Mat Type
MARA	RMATP	CHAR	18	Reference Material for Packaging		Reference Material added using value mapping table: This will be added for ZDIR materials only
MARA	WRKST	CHAR	4	Basic Material		The field will be populated for materials with material type = ZDIR (Finished Goods) to store the reference of unpackaged product (R&I samples, materials with material type ZBAS) on the packaged goods ready to sell commercially. This is required as part of NPI process. The field will also be populated for UNBW materials representing the Unused Project stock to store reference of an Indirect material ZIND. This is required for I2M Unused leftover Project materials.

Enrichment DCT for Material Type

When you will rerun?
How will you maintain old decisions

System	Material	Mat Description	Flag	Current ECC Material Type & Description	Proposed S4 Material Type & Description (Editable)	Approved (Editable)	Comments (Editable)	Audit Field

PF2/WP2	MARA-MATNR • Duplication Check on Material Number	MAKT-MAKTX	Blank - For existing materials included as part of relevancy Out of Scope - For materials removed from scope New – Assigned to materials added as a result of: (i) changes in relevancy scope or (ii) newly created material.	MARA-MTART T134-MTBEZ	1) For initial data load, materials will reference the mapping for Material Types in the Value Mapping table (link below), based on Material Group mapped to Material Type. This DCT will be used for materials that are part of the Exclusion list, and need to be mapped to the correct Material Type.	Business will be required to approve each record in this column. If left blank it will be treated as invalid.		Audit field to capture any changes to Proposed S4 Material Type

Extraction Dependencies

Item #	Step Description	Team Responsible
1	Data cleansing of legacy Material data must be completed.	Business

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	Verify that Material data is extracted from both source systems.	Syniti / S2P Data Team
2	Verify that Services data is extracted from the DCT.	Syniti / S2P Data Team
3	Verify that the Material Number XREF has been updated for both material and service data.	Syniti
5	Transformation jobs are ready for execution.	Syniti
6	Generate Load Files.	Syniti

Transformation Rules

Rule #	Source system	Source Table	Source Field	Source Description	Target System	Target Table	Target Field	Target Description	Transformation Logic
1	PF2/WP2	MARA/DCT	MATNR	Material Number	S/4HANA	MARA	MATNR	Material Number	Generate new Material number in Target System and maintain mapping in reference (XREF) table. The exception to this is for Composite materials as they will keep the material number used in Legacy/Source system.
2	PF2/WP2	MARA/DCT	MBRSH	Industry Sector	S/4HANA	MARA	MBRSH	Industry Sector	Industry Sector = C - Chemical Industry (for Syensqo)

3	PF2/WP2	MARA/DCT	MTART	Material Type	S/4HANA	MARA	MTART	Material Type	1) All ZPRC materials will map to ZBAS Material Type regardless of Material Group. 2) Check to see if any materials have been flagged as components in a Production BOM, and if so then set Material Type to be ZDIR instead of using XREF table. 3) An Exclusion list will be maintained where materials are identified as having an incorrect Material Group. This will then be added to the Enrichment DCT for loading with the correct Type. Exclude 1) & 2). 4) Create XREF table by referencing the Value Mapping table (link below) for Material Types. This maps ECC Material Group to the proposed S4H Material Type. Exclude 1), 2) &3)

4	PF2/WP2	MAKT/DCT	MAKTX	Description	S/4HANA	MAKT	MAKTX	Description	General Rule for short description, applicable to all material types except ZSER, VERP and Raw materials within ZDIR - Maximum number of 40 characters All capital letters Do not use double quotes (") to represent inches. If necessary, use two single quotes (') Use comma (,) or space to separate the words Do not include supplier specific information, they can be added to the Material PO text long description which will be printed on PO Include Material Description explaining the product details, size and packaging container ex: ALKAMULS BR 200 KG METAL DRUM Do not include Special characters in description. The Description field contains details used to define the item. This field is used as the internal product description and prints on purchase orders (but not sales orders) & is mandatory for all items. **For Packaging materials, Material type - VERP** Material group - 24110000 Containers, Short description rule - Packaging name + capacity + basic material (of pallet- Type of pallet : WOOD, STEEL or PE) + characteristics Material group - 24140000 Packing supplies , Short description rule - Packaging name + dimensions + capacity + specific characteristics (if exists) Material group - 55121600 Labels , Short description rule - Material + Packaging name + dimensions + product name **For Raw Materials, Material type - ZDIR with combination of Purchasing category** Purchasing category- Chemicals, Alcohols, Amines, Minerals, Metals, Steam and Industrial gases, Surfactants, Thickeners & Waxes and Oils Short description rule - chemical description+ concentration + weight + packaging type e.g. CARBON DIOXID 99% 25KG CYL Purchasing category - Fibers and Yarns, Mat group -11151512 Glass Fiber, Short description rule - Glass Style - Width (Metric + US) - Finish – 'Glass Fabric' - Line or Country(If needed) Mat group - 11151500 Other Fiber, Short description rules basis Fiber type- Carbon Style - Weight(gsm) - Width (Metric + US) - Fiber Type used - Tow - Twist - Line or Country(If needed) e.g. 8HS 372GSM 42IN T300 3K ST (FR) Aramid Style - Width (Metric + US) - Finish – 'Aramid Fabric' - Line or Country(If needed), e.g. 120 50IN CS-800 ARAMID FABRIC Astroquartz Style - Width (Metric + US) - Finish – 'Astroquartz Fabric' - Line or Country (If needed), e.g. 503 38IN A1100S ASTROQUARTZ FABRIC Purchasing category - Resins, Short description rule - Brand/Chemical name - Product – Form (If Required) - Country (If Required) - Weight - Pkg size, e.g. ARALDITE MY9663 WGT PK SIZE Purchasing category - Solvents, Short description rule - Brand/Chemical Name (Purity if required)- Weight - Pkg Size, e.g. ACETONE (99%) WGT PK SIZE **For Indirect Materials, Mat type - ZIND, NLAG, UNBW** Material Description must follow the UNSPSC structure Format: NOUN + MODIFIER + ATTRIBUTE 1 + ATTRIBUTE 2 Noun = What the material is Modifier = Type or Function Attributes = Key details (size, material, rating, spec, etc) Use standard abbreviations where required Maximum length = 40 characters **For Service Materials, Mat type - ZSER** Maximum number of 40 characters All capital letters Use comma (,) or space to separate the words Include Service description e.g. 'Cleaning services'
5	PF2/WP2	MAKT/DCT	SPRAS	Language Key	S/4HANA	MAKT	SPRAS	Language Key	Default language - English

6	PF2/WP2	MARA/DCT	MEINS	Base Unit of Measure (ISO Format)	S/4HANA	MARA	MEINS	Base Unit of Measure (ISO Format)	Map from source to target system in adherence to S4H ISO Data Standard using mapping table below:
7	PF2/WP2	MAKT/DCT	MATKL	Material Group	S/4HANA	MARA	MATKL	Material Group	Map from source to target using Material Group mapping table:
8	PF2/WP2	MARA/DCT	BISMT	Old Material Number	S/4HANA	MARA	BISMT	Old Material Number	For scenarios where 1 ECC material is merged to 1 S4 Material, Old Material No field needs to be populated with ECC material no. The BAAN no and description will be stored on classification. For scenarios where multiple ECC materials are merged into 1 S4 Material, Golden record should be identified and needs to be populated on the old material no field in this view. Other materials can be maintained in Old Material No characteristic on classification.
9	PF2/WP2	MARA/DCT	SPART	Division	S/4HANA	MARA	SPART	Division	Required to determine for which division the material will be created. This field is populated depending on the division configure in the system. This will be a Default value = 01 (Product).
10	PF2/WP2	MARA/DCT	PRDHA	Product Hierarchy	S/4HANA	MARA	PRDHA	Product Hierarchy	Map from source to target using table below. Only material with material type ZDIR will be relevant for Product Hierarchy. Field Value is determined from:
11	PF2/WP2	MARA/DCT	MSTAE	Cross Plant Material Status	S/4HANA	MARA	MSTAE	Cross Plant Material Status	Map from source to target using Material Status mapping table
12	PF2/WP2	MARA/DCT	MSTDE	Valid From	S/4HANA	MARA	MSTDE	Valid From	Copy from source to target system
13	PF2/WP2	MARA/DCT	MTPOS_MARA	General Item Category Group	S/4HANA	MARA	MTPOS_MARA	General Item Category Group	Select the general item category group relevant for the material. The general item category values applicable are: NORM Standard Item => Material type ZDIR, ZIND, UNBW LEIS Service w/o Delivery => Material type ZSER DIEN Service w/ Delivery => Material type ZSER NLAG Non Stock Item / Test Panel => Material type NLAG ZAN2 Auxiliary items => Material type ZDIR ZAN3 Distress / Scrap / Raw => Material type ZDIR ZAN4 Bonded Warehouse => Material type ZDIR BANS Third Party Item => Material type ZDIR LEIH Returnable Packaging => Material type ZLEI With ZDIR materials there are 5 different categories so we need to identify the relevant materials by also referencing the Material Group.
14	PF2/WP2	MARA/DCT	BEGRU	Authorization Group	S/4HANA	MARA	BEGRU	Authorization Group	Copy from source to target system
15	PF2/WP2	MARA/DCT	BRGEW	Gross Weight	S/4HANA	MARA	BRGEW	Gross Weight	Copy from source to target system
16	PF2/WP2	MARA/DCT	NTGEW	Net Weight	S/4HANA	MARA	NTGEW	Net Weight	Copy from source to target system
17	PF2/WP2	MARA/DCT	GEWEI	Unit of Weight (ISO Format)	S/4HANA	MARA	GEWEI	Unit of Weight (ISO Format)	Map from source to target system in adherence to S4H ISO Data Standard
18	PF2/WP2	MARA/DCT	VOLUM	Volume	S/4HANA	MARA	VOLUM	Volume	Copy from source to target system
19	PF2/WP2	MARA/DCT	VOLEH	Volume Unit	S/4HANA	MARA	VOLEH	Volume Unit	Map from source to target system in adherence to S4H ISO Data Standard
20	PF2/WP2	MARA/DCT	GROES	Size/Dimensions	S/4HANA	MARA	GROES	Size/Dimensions	Copy from source to target system
21	PF2/WP2	MARA/DCT	EAN11	EAN/UPC	S/4HANA	MARA	EAN11	EAN/UPC	Copy from source to target system
22	PF2/WP2	MARA/DCT	NUMTP	EAN Category	S/4HANA	MARA	NUMTP	EAN Category	Copy from source to target system
23	PF2/WP2	MARA/DCT	MAGRV	Material Group: Packaging Materials	S/4HANA	MARA	MAGRV	Material Group: Packaging Materials	Map from source to target using value mapping table: This will be added for materials with ZLEI/ZLEH/ZLER Mat Type
24	PF2/WP2	MARA/DCT	RMATP	Ref. material for packaging	S/4HANA	MARA	RMATP	Ref. material for packaging	Map from source to target using value mapping table: This will be added for ZDIR materials only
25	PF2/WP2	MARA/DCT	NORMT	Industry Standard Description (Ind. Std Desc.)	S/4HANA	MARA	NORMT	Industry Standard Description (Ind. Std Desc.)	Copy from source to target system
26	PF2/WP2	MARA/DCT	WRKST	Basic Material	S/4HANA	MARA	WRKST	Basic Material	The field will be populated for materials with material type = ZDIR (Finished Goods) to store the reference of unpackaged product (R&I samples, materials with material type ZBAS) on the packaged goods ready to sell commercially. This is required as part of NPI process. The field will also be populated for UNBW materials representing the Unused Project stock to store reference of an Indirect material ZIND. This is required for I2M Unused leftover Project materials.
28					S/4HANA	MARA	CHML_CMPLNC_RLVNCE_IND	Compliance Relevant Indicator	Compliance Relevant Indicator to be set for materials/material groups related to chemicals. The Indicator is visible in the view within the Fiori App “Manage Product Master Data (ID: F1602)” under the Product Compliance tab in Manage Product Master. Additionally, you can refer to the backend table field MARA–CHML_CMPLNC_RLVNCE_IND, where the corresponding values are stored.
29	PF2/WP2	MARA/DCT	ANP	ANP Code	S/4HANA	MARA	ANP	ANP Code	Copy from source to target system

Transformation Mapping

Mapping Table Name	Mapping Table Description	Link
Material Type	Mapping of legacy Material Types to target system value	
Material Group	Mapping of legacy Material Groups to target system value	
Product Hierarchy	Mapping of legacy Product Hierarchies to target system value	
BUoM	Mapping of Base Unit Of Measure	

Transformation Dependencies

List the steps that need to occur before transformation can commence

Item #	Step Description	Team Responsible
1	All Material Type mapping has been completed and mapping table in place	S2P Data Team
2	Data has been extracted from sources systems	Syniti
3	Material Relevancy run is completed	
4	Deduplication is completed	Syniti & S2P Data Team
5	Configuration should be completed - (Config documents should be complete)	S2P Functional Team
6	Ensure DCT completeness	S2P Data Team
7	Value mapping and XREF tables are ready	Syniti & S2P Data Team

Inclusion table/Exclusion Table

1	Exclusion table to show ECC materials extracted that are not to be migrated
2	Exclusion table to show where DCT will be the source instead of ECC
3	Inclusion table to show additional materials required from ECC (as were not part of original relevancy criteria)

Pre-Load Validation

Project Team

Completeness

Task	Action
Verify Record Count	The number of records presented after relevancy checks and validation, as well as the number of records in the DCT, needs to be correct compared to the staged data in Syniti ADMM.
Completeness check	All fields required as per mapping template rules must be completed. Syniti ADMM standard validity reports checking each field in Syniti must be built.

Accuracy

Task	Action
Conversion Accuracy	Verify that the data staged in the preload tables are correct in terms of the mapping rules. This will be done via Syniti ADMM standard reports..
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
Completeness Check	Business should compare legacy record counts, taking into account the reduction from the relevancy and deduplication processes, against the record count in the preload table.

Accuracy

Task	Action
Conversion Accuracy	Business team to verify that the data staged in the preload tables are correct in terms of the mapping rules. This will be done via Syniti ADMM reports/SAP reports.

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
1	Verify data extracted	Data Specialist/Functional - S2P
2	Verify data combined from both source systems and DCT	Data Specialist/Functional - S2P
3	Verify Material, Plant and Purchasing Group XREFs are ready	Data Specialist/Functional - S2P
4	Stage data for transformations	Syniti
5	Run transforms	Syniti
6	Execute pre-load report	Syniti
7	Validate preload report - release	Data Specialist/Functional - S2P
8	Prepare and simulate	Syniti
9	Pre-load verification and approval to load	Functional/Data Owner - S2P
10	Load to S4	Syniti
11	Complete Jira steps, Volumes and Timings	All - where applicable
12	Execute post-load report	Syniti
13	Post-load report verification/validation	Data Specialist/Functional/Data Owner - S2P
14	Object load completion approval	Data Owner - S2P

Load Phase and Dependencies

Configuration

Item #	Configuration Item	Description
MARA	MTART	Material Type
MARA	MBRSH	Industry Sector
MARA	MATKL	Material Group
MARA	MEINS	Unit of Measure
MARA	LABOR	Lab/Office
MARA	SPART	Division
MARA	PRDHA	Prod Hierarchy
MARA	MSTAE	X-Plant status
MARA	MTPOS_MARA	Item Category
MARA	BEGRU	Auth Group
MARA	GEWEI	Weight Unit
MARA	VOLEH	Volume Unit
MARA	NUMTP	EAN Category
MARA	MAGRV	Material Packaging Group
MAKT	SPRAS	Language

Conversion Objects

Object #	Preceding Object Conversion Approach

Error Handling

Error Type	Error Description	Action Taken
Config	Configuration is missing in the Target System	Missing config to be added in the Target System
Data	Duplicates	Fix incorrect data

Post-Load Validation

Project Team

Post-Load Steps

Step Description	Team Responsible
Execute post-load report	Syniti
Post-load report verification/validation	Data Specialist/Functional/Data Owner - S2P
Object load completion approval	Data Owner - S2P

Completeness

Task	Action
Verify Count	The number of records presented in the post-load needs to be compared to the preload – Syniti report

Field by field check	Compare source data staged in the preload tables to target data in the load tables.

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	The number of records presented in the preload needs to be compared to the post-load Syniti report.
Missing data	Check missing data which was supposed to be loaded.
Reconciliation	Participate in Post-load walkthroughs.
Field by field check	Perform random Field by Field checks by comparing source data staged in the preload tables to target data in the load tables.

Accuracy

Task	Action
Conversion Accuracy	Verify that the data in S/4 HANA was loaded correctly via Syniti post-load reports.

Key Assumptions

- Master Data Standard is up to date as on the date of documenting this conversion approach and data load.
- Materials - Basic Data is in scope based on data design and any exception requested by business.

See also Next Steps:

We are adding list of all tasks which need to be completed for Material master data preparation for migration.

Change log

Version	Published	Changed By	Comment
CURRENT (v. 324)	**May 14, 2026 08:40**	**HANCOCK-ext, John**	
v. 323	May 12, 2026 12:30	**HANCOCK-ext, John**	
v. 322	May 12, 2026 10:52	**HANCOCK-ext, John**	
v. 321	May 12, 2026 10:51	**HANCOCK-ext, John**	
v. 320	May 12, 2026 10:46	**HANCOCK-ext, John**	
v. 319	May 12, 2026 10:38	**HANCOCK-ext, John**	
v. 318	May 12, 2026 10:01	**HANCOCK-ext, John**	

v. 317	May 12, 2026 09:57	**HANCOCK-ext, John**
v. 316	Apr 30, 2026 14:20	**HANCOCK-ext, John**
v. 315	Apr 30, 2026 09:59	**HANCOCK-ext, John**

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 Apr 09, 2026 to May 14, 2026	Actor	Type	Activity	Version
Approved	HANCOCK-ext, John	Edit	updated the page at 2:07 pm Other contributors:	
Mar 16, 2026				
	HOLMES-ext, Richard	State	changed state to Approved at 12:09 pm	v306
Lead Approval	HOLMES-ext, Richard	State	gave *POD Lead Review* approval at 12:09 pm	
Mar 06, 2026				
	MADHOK-ext, Jasleen	Edit	updated the page at 1:37 pm	
	MCARDLE-ext, Edward	State	changed expiry date to '13 Mar, 2026 01:32 pm' at 1:32 pm	
		State	changed state to Lead Approval at 1:32 pm	v306