

# KDD009 - Standardisation of Units of Measure

Status	Approved
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## Issue

Syensqo has close to 700 non-standard/custom units of measure created in the system.

- These non-standard units of measure might cause data consistency issues as the definitions and the conversions are not standardised
- These custom units of measure cause issues with integrations with other SAP modules or 3rd party systems that do not recognise these units

## Recommendation

Based on the evaluation of the solution options, it is recommended to Use SAP / ISO Standard UoMs and conversions. This follows the Simplification /Standardisation approach of the project and ensures consistency and ease of integration across the landscape.

Any legacy data using non-standard UoMs will be mapped to standard UoMs during data migration.

## Background & Context

Syensqo has close to 700 non-standard/custom units of measure created in the system. These units are historically created to cater to UoM's published by suppliers in various catalogs and also as a workaround to support certain business processes. Below are some of the issues faced currently

- Incorrect Conversion Factors - Missing or incorrect conversion factors between non-standard UoM's sometimes cause calculation errors e.g., in pricing, inventory etc.
- Reporting and Analysis Errors - Non-standard UoM's create issues in reporting and analytics, leading to miscalculations or inaccurate data representation and aggregations
- Incompatibility with SAP Standard Functions - Some SAP standard functions (e.g., MRP, ATP checks) do not fully support non-standard UoM's, or require additional customisation
- User Confusion and Data Entry Mistakes - Non-standard UoM's sometimes lead to user confusion and result in data entry mistakes, especially when the same unit of measure is shared across multiple business units

## Scale of Issue

Below table provides the statistics of non-standard UoM's in the system along with the usage of the same.

Syst em	Non-Standard UoM's	POs in past 5 years	PO's with non-Standard UoM	%	UoM's used in affected POs	Materials changed in 10 Years	Materials with Non-Standard UoM	%	UoM's used in Material Masters
QF2	404	4,642,346	184,587	4%	66	613,651	27,648*	5%	32
WQ2	357	2,877,450	82,007	3%	73	567,413	5,995	1%	51

\*23,000 of the Material Masters in QF2 use just one non Std UoM - "NR - Number"

As a part of the above analysis, though there are ~700 non-standard UoM's that are existing in the system, there are only ~200 of them are currently active and being used in material master and Purchase Orders.

## Assumptions

- Business processes are simplified and standardised and will not have any requirements for non-standard units of measure
- Punch-out catalogs used by Syensqo will have standard ISO units of measure - In case of any exceptions, the unit of measure in the catalog will be mapped to a standard unit of measure in SAP

## Constraints

N/A

# Impacts

## Data Migration

- All dependent master data ex: Material master, BOM's etc.. will be updated with the standard unit of measure (All the quantities in these data objects ex: BOM Header quantity, MOQ in material master will be updated based on the conversion factors)
- Stock quantities ex: Inventory, Stock in transit etc.. will adjusted based on the standard UoM before migrating to the new system
- Prices ex: Info records, pricing conditions etc.. will be adjusted based on the standard UoM before migrating to the new system

## Downstream systems

- Any downstream system using the master data with non-standard UoM will be updated with new UoM and conversions. Mapping table will be used in case the UoM updates are not possible

## Communication

- Communication along with the mapping for non-standard to Standard UoM's will be sent to the relevant customers / Vendors / 3rd party systems

# Business Rules

All the master data and Business processes use only Standard SAP / ISO Units of Measure

# Options considered

Following are the options considered.

## Option 1: Use SAP / ISO Standard UoMs and conversions

As a part of this option, all the master data and business processes use only the standard SAP/ISO unit of measures available in the system. Non-standard UoM's are not permitted to be created / used. Mapping activity will be carried out when the master data / transactional data is migrated from the legacy systems to the new S/4 HANA system.

### Advantages:

- UoM's and conversions are standardised across all the master data objects and business processes
- No additional effort / customisations required to enable the standard SAP functionality
- Uniform and Simplified reporting as the UoM's and conversion factors are standardised
- Standard integrations without any additional data mappings with other modules of SAP, SAAS systems and any other 3rd party applications

### Disadvantages:

- One time data conversion effort to map the master and transactional data with standard UoM
- One time data conversion / mapping of the non-standard UoM's in the downstream systems
- Business processes that require creation of the non-standard UoM needs to be remediated

## Option 2: Allow the use of non-standard UoM's

As a part of this option, the existing As-Is active non-standard UoM's are migrated to the new S/4 Hana system.

### Advantages:

- The existing processes can continue without any changes
- No data migration/mapping effort except when there is de-duplication of master data

### Disadvantages:

- No standardisation of the UoM's across master and transactional data
- Complex governance process to govern the non-standard UoM's and the conversion factors
- User errors due to confusion and unfamiliarity of the non-standard UoM's
- Customisations and data mappings required for integrations to any SAAS or 3rd party applications
- Not all standard functionalities will be able to support the non-standard UoM's
- Potential incorrect reporting and aggregations

# Evaluation

Based on the evaluation of the solution options, Option 1: Use SAP / ISO Standard UoM's and conversions is recommended. This follows the Simplification/Standardisation approach of the project and minimises any maintenance burden going forward.

Criteria	Option 1: Use SAP / ISO Standard UoM's and conversions	Option 2: Allow the use of non-standard UoM's
Alignment with project charter - Standardization and Simplification	+ Aligned with the Simplification and Standardisation principle	- Not Aligned
Integration	+ Standard integration without any data mapping or customisations required for UoM's	- Data mappings or customisations required for integrating with other SAP modules are 3rd party applications which doesn't support the non-standard UoM
Data Migration	- One time effort to map the non-standard UoM's on the master and transactional data and migrate	+ No mapping required. However where there is de-duplication of materials with a standard and non-standard UoM, additional mapping effort is required
Reporting	+ Accurate and consistent reporting as the UoM and the conversion factors are standardised	- Potential errors / requirement of mappings due to incorrect conversion factors or inconsistent use of non-standard UoM

## See also

File	Modified
PDF File Workspace Mail - Fwd_ ERP Rebuild SteerCo Sept 2024 - Decisions and Actions.pdf	Sept 30, 2024 by FALL-ext, Cheikh




## Change log

Version	Published	Changed By	Comment
<b>CURRENT (v. 38)</b>	<b>Jul 24, 2025 10:30</b>	<b>WENNINGER-ext, Sascha</b>	
v. 37	Aug 30, 2024 10:06	NARAHARI-ext, Bhargavi	
v. 36	Aug 29, 2024 19:56	NARAHARI-ext, Bhargavi	
v. 35	Aug 29, 2024 19:55	NARAHARI-ext, Bhargavi	
v. 34	Aug 29, 2024 17:42	NARAHARI-ext, Bhargavi	
v. 33	Aug 29, 2024 17:33	NARAHARI-ext, Bhargavi	
v. 32	Aug 29, 2024 17:14	NARAHARI-ext, Bhargavi	
v. 31	Aug 29, 2024 16:53	NARAHARI-ext, Bhargavi	
v. 30	Aug 29, 2024 16:02	MCCARTNEY-ext, Stephen	
v. 29	Jul 23, 2024 18:46	WENNINGER-ext, Sascha	

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## Workflow history

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

Jul 24, 2025	Actor	Type	Activity	Version
Approved	WENNINGER-ext, Sascha	Edit	updated the page at 10:30 am	
		State	changed state to <b>Approved</b> at 8:31 am	v38
Edited following Approval	WENNINGER-ext, Sascha	State	gave <i>Minor change</i> approval at 8:31 am	
		State	changed state to <b>Edited following Approval</b> at 8:30 am	v38
<b>Sept 30, 2024</b>				
Approved	 FALL-ext, Cheikh	State	changed state to <b>Approved</b> at 4:31 pm	v37
Pending SteerCo Review	 FALL-ext, Cheikh	State	gave <i>Final Approval</i> approval at 4:31 pm	
<b>Sept 26, 2024</b>				
	 FALL-ext, Cheikh	State	changed expiry date to '10 Oct, 2024 01:15 pm' at 1:15 pm	
		State	changed state to <b>Pending SteerCo Review</b> at 1:15 pm	v37