

KDD055 - Multi-Language Support

Status	Approved
Owner	NARAHARI-ext, Bhargavi
Stakeholders	

Issue

The number of system languages implemented in a SAP system significantly adds to the complexity of the initial system design, implementation, testing and continued maintenance with respect to master data, system configuration, development (reports, forms, system interfaces, etc.), process documentation, employee user interface, shared service functions and IT support.

There are currently 21 languages (logon languages) implemented in Syensqo. As a part of the ERP rebuild project there is an opportunity to simplify and standardize the language implementation.

Recommendation

Option A – Implementing 4 Core Languages (English, French, Italian and Mandarin) is recommended for its alignment with the principles of simplicity and standardization and cost-effectiveness. By supporting 4 languages, initial translation and maintenance costs/time are lowered, allowing for a quicker deployment and efficient use of resources.

With 92.5% employee language coverage, Option A provides substantial support while remaining within budget constraints, making it a suitable choice for organizations that need effective language coverage without the added complexity and higher costs associated with implementing Option B. To mitigate any risks in critical functions, **Option A includes additional language support (Brazilian Portuguese, German and Spanish) for manufacturing, Logistics (Warehouse operations) and maintenance** which will bring the employee language coverage up to 97%. Although this option may offer slightly less comprehensive localization, it effectively balances user accessibility with operational efficiency. This balanced approach ensures substantial language coverage for the majority of employees while managing costs effectively and maintaining operational efficiency.

Background & Context

Implementing multiple system languages in an SAP environment introduces substantial complexity across various stages of the system lifecycle. Here's a detailed breakdown:

- System Design and Implementation: Incorporating multiple languages into an SAP system involves complex initial design and setup, including installing and configuring language packs and adapting custom developments to support various languages.
- Testing and Quality Assurance: Extensive testing is required across all supported languages to ensure functionality, data accuracy, and user interface consistency, which adds to the overall complexity and effort.
- Master Data and Configuration: Managing master data and system configurations in multiple languages requires careful translation and consistency, impacting data integrity and the configuration process.
- Development and Documentation: Custom reports, forms, and system interfaces need to be multilingual, and process documentation and training materials must be translated and maintained in all supported languages.
- Ongoing Support and Maintenance: Multilingual support impacts IT and shared services functions, requiring additional resources for support and regular updates in all supported languages.

Syensqo currently has around 23 languages installed in ECC: 21 logon languages and 2 languages without logon capability. Following are all the languages implemented in the As-Is system.

Language Key	Language Description	Language Key	Language Description
AR	Arabic	IT	Italian
BG	Bulgarian	JA	Japanese
CS	Czech	KO	Korean
DE	German	NL	Dutch
EL	Greek	PL	Polish
EN	English	PT	Portuguese
ES	Spanish	RU	Russian
FI	Finnish	SK	Slovak
FR	French	TH	Thai
Z8	US English	TR	Turkish
Z9	Brazilian Portuguese	ZF	Chinese trad.
		ZH	Chinese

Noteworthy is the presence of custom language codes Z8 and Z9, which are not delivered by SAP as part of its software delivery.

Assumptions

- The Language assignment per each country in the section [Employee Counts](#)
- The SaaS systems will support the recommended languages
- Any additional language requirements for SuccessFactors will be incorporated as part of the SuccessFactors project
- English language referenced in this paper equals American English and not British English
- French language referenced in this paper equals mainland French (spoken in France) and not Canadian French
- In case additional instances are proposed as part of the instance strategy, the instance will have English by default and the subset of the recommended languages which are applicable, e.g. a separate instance for China would have English and Chinese as languages
- The majority of Syensqo staff in Japan and Korea are white-collar workers able to use a system in English.

Constraints

The employee counts are based on SuccessFactors data obtained in August 2024. The evaluation is done based on these employee counts and if there are any significant discrepancies, the evaluation needs to be repeated. See the [Employee Counts](#) section for the actual employee counts considered

Impacts

Organisational change: Reducing language coverage to 4 core languages means that some employees who previously used the system in other languages will need to be upskilled to use the system in English or the remaining core languages. This transition may involve additional training and support to be planned and conducted by the Business to help these employees adapt to the new language requirements.

Regulatory validation: Regulatory and audit teams will need to review and sign off on the proposed language coverage to ensure that it meets all local legal and regulatory requirements. This validation process ensures that the system remains compliant with relevant regulations and that any language limitations are documented and approved.

Change Management and training: Training material and comms to be translated to the 4 core languages. Training material relevant for manufacturing, Logistics (Warehouse operations) and maintenance to be translated to 8 languages

Data Migration: Data migration team to take into account the language considerations for cleansing

User Experience for users with language preference of Brazilian Portuguese, German or Spanish: SAP-standard UIs and custom UIs related to manufacturing, Logistics (Warehouse operations) and maintenance are displayed in their preferred language. UIs outside of this limited scope will be displayed in English. Supplementation will occur using English for these languages inside the SAP systems.

Business Rules

Following are some of the Business Rules determined as part of this document. More rules to be defined during the detailed design

- Employee language is determined based on the default language from SuccessFactors HR data
- In case the preferred language is missing from the employee profile, the default logon language is English
- All master data content must be maintained in English language. This is to carry out the duplication checks

Options considered

Rationale for choosing the below options

The rationale for selecting the below options is outlined in the section below: [Rationale for Options selection](#)

Option A: Implement 4 Core Languages (English, French, Italian and Mandarin)

4 core languages English, French, Italian and Mandarin are fully implemented across the system, including for User Interfaces and data.

The additional languages Brazilian Portuguese, German and Spanish will be made available as logon languages but fully supported only for functionality pertaining to Manufacturing, Logistics (Warehouse operations) and Maintenance operations.

This gives about a coverage of 92.5% of employees (97.15% with additional languages). This option also covers 66 / 67 manufacturing plants across the globe.

Option B: Implement 7 Core Languages (English, French, Italian, Mandarin, Brazilian Portuguese, German, Spanish)

Fully implement 7 core languages across the system, including for standard and custom UIs and all data. This gives about a coverage of 97.15% of employees and covers 66/67 manufacturing plants

Detailed Definition

As this is a complex area, the table below depicts the commonalities and differences between these two Options.

Object	Sub-Object	Approach - Option A	Approach - Option B
Screens / User Interface	SAP Standard Screens	SAP standard screens will be available in all 7 languages (English, French, Italian and Mandarin, Brazilian Portuguese, German and Spanish)	
	Custom Screens including Mobility	Manufacturing, Logistics (Warehouse operations) / Maintenance related: Available in 7 languages Others: 4 core languages. Supplementation will occur using English.	Available in 7 languages
	Alerts / Notifications / Work items	Manufacturing, Logistics (Warehouse operations) / Maintenance related: Available in 7 languages Others: 4 core languages. Supplementation will occur using English.	Available in 7 languages
Output Forms	Form Labels	Default: English Manufacturing, Logistics (Warehouse operations) and Maintenance related labels: All 7 languages if applicable Rest of the labels: 4 core languages if applicable	Default: English All form labels: 7 core languages
		Legal & regulatory requirements may dictate the use of output forms printed in additional languages not described in this document (e.g. Korean). Form labels can be output in languages not otherwise enabled for login or UI presentation. Selection of form template in the system can occur based on the customer language preference, destination location, or other criteria to suit applicable regulations.	
	Form Content	As maintained in the system (See the rules below)	
Reports	Management Reports labels	English	
	Operational report labels	All 7 languages for Manufacturing, Logistics (Warehouse operations) and Maintenance 4 core languages for all others	All 7 languages
	Legal and Regulatory reports - labels	In the language required by applicable legal and regulatory requirements (which may be languages other than the 7 languages listed in this document)	
	Data	As maintained in the system (See the rules below)	
Config Values	All config values	Default: English mandatory Manufacturing, Logistics (Warehouse operations) and Maintenance related config: All 7 languages Rest of the config: 4 core languages	Default: English mandatory Config: 7 core languages

		Maintained in any other language if this is required by legal or regulatory requirements. Technical limitations may necessitate the activation of additional logon languages in order to maintain this configuration.	
Master Data Content	All	Default: English mandatory Manufacturing, Logistics (Warehouse operations) and Maintenance related data: All 7 languages (based on the plant or country where the master data is extended to)	Default: English mandatory All data: All 7 languages (based on the plant or country where the master data is created /extended)
		Content required for regional operations, country specific regulatory requirements on output Forms, Reports and Interfaces to be maintained in additional languages (other than the 7 languages mentioned in this document). Example: Product description might have to maintained in Japanese, Korean, and other languages as there are distribution centers in those countries and the local regulations mandate the product description to be printed in the local language.	
Training & Communications	All	Manufacturing, Logistics (Warehouse operations) and Maintenance: All 7 languages Other training material: 4 core languages	All 7 languages

Evaluation

	Option A - Implement 4 core languages	Option B - Implement 8 Core languages
Alignment to Design Principles	+ Adheres to Simplification and Standardization principle	- Additional four languages increase complexity of system design, build and maintenance
Employee Language Coverage	- 92.5% of the employee's primary language is covered by implementing this option. However, it goes up to 97% as the manufacturing and maintenance transactions are supported in 7 languages	+ 97% of the employees' primary language is covered by implementing this option
Ongoing Language Support Costs - Internal	+ Medium - Costs are moderate as the system supports 4 core languages, with additional support for a few transactions in the remaining languages. Maintenance and support efforts are relatively lower compared to Option B.	- High - Supporting 7 languages increases the complexity and cost of ongoing maintenance and support. This includes higher expenses for managing and updating multiple language packs and ensuring consistent performance across all languages.
Ongoing Language Support Costs - shared service / IT helpdesk	+ Medium - Comparatively lower costs than Option B as the shared service and IT helpdesk support 4 languages	- High - Significant costs are associated with shared services and IT helpdesk support for 7 languages. The helpdesk must handle more complex language-related issues, leading to higher operational costs and resource requirements.
SAP S/4 Hana languages coverage for User Interface	+ All the languages proposed are available as part of Standard SAP offering	+ All the languages proposed are available as part of Standard SAP offering
Translation Cost	+ High - Translation costs are substantial as data, configuration settings, and labels need to be converted into 4 core languages. This includes initial translation and ongoing updates.	- Very High - Translation costs are significantly higher with 7 languages, covering extensive data, configuration settings, and labels. The increased number of languages leads to higher initial translation expenses and ongoing costs for updates and maintenance.

Rationale for Options selection

A detailed evaluation is done based on the following parameters to identify the language options that are considered in the document

- Employee count (Including the contingent workers)
- Manufacturing plants and Distribution centers
- Revenue
- Official Languages
- Regulatory requirements

A detailed table of the actual analysis can be found below

Country	Country Code	Employee Count per country	Employee coverage per country	Company Codes	Manufacturing Plants	Distribution Centers	Significant Revenue Generators (Based on the BFC Data)	Official Languages (Main)	Official Languages (Others)	Regulatory constraints	Option 1 Inclusion Criteria 1 (Manufacturing plants with aggregate employee coverage 5%) Exclusion Criteria - 1 significant revenue generator
Argentina	AR	9	0.06	1	0	0	Yes	Spanish		Yes, Spanish is commonly required.	
Australia	AU	24	0.15	2	0	4	No	English		No strict legal requirement; English is used.	
Austria	AT	1	0.01	0	0	0	No	German		Not Applicable	
Belgium	BE	828	5.16	6	2	3	Yes	French, Dutch	German	Mixed; Dutch, French, and German support may be required depending on the region. French is indicated as main language as it is the main language spoken in Brussels	Yes
Brazil	BR	336	2.09	2	2	3	No	Brazilian Portuguese		Yes, Brazilian Portuguese is required.	
Canada	CA	231	1.44	1	1	2	No	English	French	Mixed; English and French support is needed, especially in Quebec.	Yes
Chile	CL	35	0.22	1	0	1	No	Spanish		Yes, Spanish is commonly required.	
China	CN	1931	12.04	10	6	13	Yes	Mandarin Chinese (Simplified Chinese)		Yes, Mandarin Chinese is required.	Yes
Colombia	CO	20	0.12	0	0	0	No	Spanish		Not Applicable	
Croatia	HR	2	0.01	0	0	0	No	Croatian		Not Applicable	
Czech Republic	CZ	9	0.06	0	0	0	No	Czech		Not Applicable	
Democratic Republic of Congo	CD	4	0.02	0	0	0	No	French	(Lingala, Kikongo, Swahili, Tshiluba are national languages)	Not Applicable	
France	FR	3176	19.8	9	9	6	Yes	French		Yes, French is typically required.	Yes
Germany	DE	319	1.99	2	1	1	Yes	German		Yes, German is required for compliance and practical business use.	
Hong Kong	HK	1	0.01	0	0	0	No	Chinese (Cantonese)	English	Not Applicable	
India	IN	584	3.64	2	3	1	Yes	English	Hindi, English (21 other recognized languages at the state level)	No strict requirement; English is widely used, but regional languages may be supported depending on user needs.	Yes
Indonesia	ID	7	0.04	1	0	2	No	Indonesian (Bahasa Indonesia)		No strict requirement; Indonesian (Bahasa Indonesia) is useful.	
Italy	IT	1363	8.5	4	3	1	Yes	Italian		Yes, Italian is commonly required.	Yes
Jamaica	JM	2	0.01	0	0	0	No	English		Not Applicable	
Japan	JP	103	0.64	3	0	72	Yes	Japanese		Yes, Japanese is required.	
Kazakhstan	KZ	6	0.04	0	0	1	No	Kazakh, Russian		Yes, Russian is commonly required	

Luxembourg	LU	11	0.07	4	0	0	Yes	French	Luxembourgish, German	Mixed; Luxembourgish, French, and German support may be required.	
Malaysia	MY	7	0.04	0	0	0	No	Malay (Bahasa Malaysia)		Not Applicable	
Mexico	MX	186	1.16	1	1	7	No	Spanish	(68 national languages including various indigenous languages)	Yes, Spanish is commonly required.	
Mongolia	MN	1	0.01	0	0	0	No	Mongolian		Not Applicable	
Morocco	MA	32	0.2	0	0	0	No	Arabic	Berber (Amazigh)	Not Applicable	
Netherlands	NL	96	0.6	2	1	1	No	English	Dutch	No strict requirement; Dutch is beneficial.	
New Zealand	NZ	5	0.03	1	1	1	No	English	Mori, New Zealand Sign Language	No strict requirement; English is used.	Yes
Panama	PA	1	0.01	0	0	0	No	Spanish		Not Applicable	
Peru	PE	17	0.11	1	0	0	No	Spanish	Quechua, Aymara (and other indigenous languages)	Yes, Spanish and Quechua support may be useful.	
Philippines	PH	1	0.01	0	0	0	No	English	Filipino (based on Tagalog)	Not Applicable	
Portugal	PT	224	1.4	2	0	0	No	Portuguese		Yes, Portuguese is required.	
Romania	RO	8	0.05	0	0	0	No	Romanian		Not Applicable	
Serbia	RS	1	0.01	0	0	0	No	Serbian		Not Applicable	
Singapore	SG	81	0.5	3	0	3	No	English	Malay, Mandarin, Tamil	Mixed; English, Malay, Mandarin, and Tamil support may be required.	
South Africa	ZA	6	0.04	0	0	0	No	English	11 official languages including Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga	Not Applicable	
Switzerland	CH	4	0.02	1	0	0	No	German	French, Italian, Romansh	Mixed; German, French, Italian, and Romansh support may be needed depending on the region.	
Taiwan	TW	19	0.12	1	0	1	No	Mandarin Chinese (Simplified Chinese)		Yes, Mandarin Chinese is required.	
Thailand	TH	98	0.61	2	2	1	No	Thai		Yes, Thai is commonly required.	
Türkiye (Turkey)	TR	17	0.11	0	0	1	No	Turkish		Not Applicable	
Ukraine	UA	1	0.01	0	0	0	No	Ukrainian		Not Applicable	
United Arab Emirates	AE	39	0.24	2	0	2	No	Arabic		Yes, Arabic is typically required.	
United States of America	US	5415	33.75	19	31	71	Yes	English		No strict requirement; English is used.	Yes
Uruguay	UY	2	0.01	0	0	0	No	Spanish		Not Applicable	
Zambia	ZM	4	0.02	0	0	0	No	English		Not Applicable	
Great Britain	GB	650	4.05	9	4	9	No	English		No strict requirement; English is used.	Yes
South Korea	KR	127	0.79	2	0	1	Yes	Korean		Yes, Korean is required.	

Aggregating the number of employees by language yields the following distribution. Languages recommended in this document as primary system languages are highlighted in green, while languages recommended for Manufacturing and Maintenance use cases are shown in pale green.

Language	Employee Count (combined number of employees per main official language)	Percentage	Cumulative Percentage
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English	7099	44.25%	44.25%
French	4019	25.05%	69.30%
Mandarin Chinese (Simplified Chinese)	1950	12.15%	81.45%
Italian	1363	8.50%	89.95%
Portuguese (inc. Brazilian Port.)	560	3.49%	93.44%
German	324	2.02%	95.46%
Spanish	270	1.68%	97.14%
Korean*	127	0.79%	97.93%
Japanese*	103	0.64%	98.57%
Thai	98	0.61%	99.18%
Arabic	71	0.44%	99.63%
Turkish	17	0.11%	99.73%
Czech	9	0.06%	99.79%
Romanian	8	0.05%	99.84%
Indonesian (Bahasa Indonesia)	7	0.04%	99.88%
Malay (Bahasa Malaysia)	7	0.04%	99.93%
Kazakh, Russian	6	0.04%	99.96%
Croatian	2	0.01%	99.98%
Chinese (Cantonese)	1	0.01%	99.98%
Mongolian	1	0.01%	99.99%
Serbian	1	0.01%	99.99%
Ukrainian	1	0.01%	100.00%

*) Note: Despite the greater number of native speakers for these languages, the relevant populations are predominantly white-collar workers and thus more likely to be able to work in English.

Mapping various enterprise structure elements to the main language used in the respective country reveals that Syensqo's ECC systems support a number of languages which are no longer operationally relevant to the company, or which have only a very small number of operations conducted in this language. This provides a large opportunity to simplify the future S/4HANA deployment. The most significant location where native language support will be removed is Japan, which hosts no manufacturing but a significant Distribution Center network.

Language	Company Codes	Manufacturing Plants	Distribution Centers	Recommended for S/4HANA	Present in ECC
Arabic	2	0	2		Yes
Bulgarian	0	0	0		Yes
Chinese (Cantonese)	0	0	0		
Croatian	0	0	0		
Czech	0	0	0		Yes
Dutch	0	0	0		Yes
English	39	41	92	Yes	Yes
Finnish	0	0	0		Yes
French	19	11	9	Yes	Yes
German	3	1	1	Yes, for Manufacturing & Maintenance	Yes
Indonesian (Bahasa Indonesia)	1	0	2		
Italian	4	3	1	Yes	Yes
Japanese	3	0	72*		Yes
Kazakh, Russian	0	0	1		Yes
Korean	2	0	1		Yes
Malay (Bahasa Malaysia)	0	0	0		

Mandarin Chinese (Simplified Chinese)	11	6	14	Yes	Yes
Mongolian	0	0	0		
Polish	0	0	0		Yes
Portuguese, inc. Brazilian Portuguese	4	2	3	Yes, for Manufacturing & Maintenance	Yes
Romanian	0	0	0		
Serbian	0	0	0		
Slovak	0	0	0		Yes
Spanish	4	1	8	Yes, for Manufacturing & Maintenance	Yes
Thai	2	2	1		Yes
Turkish	0	0	1		Yes
Ukrainian	0	0	0		

*) The majority of these appear to be not true Distribution Centre's but "port plants". These will most likely be represented by other enterprise structure elements in the future S/4HANA solution.

See also

File	Modified
PDF File Approval for KDD055 and KDD011.pdf	Feb 02, 2026 by CHIEW-ext, Yock Sang
PDF File Workspace Mail - Fwd_ ERP Rebuild SteerCo Sept 2024 - Decisions and Actions.pdf	Sept 30, 2024 by FALL-ext, Cheikh
File 2605069_Workforce Report(Summary).csv	Sept 05, 2024 by NARAHARI-ext, Bhargavi
Microsoft Excel Spreadsheet Language Analysis.xlsx	Sept 05, 2024 by NARAHARI-ext, Bhargavi

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Change log

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CURRENT (v. 31)	Jan 18, 2026 10:22	LEIGHTON-ext, Dean	
v. 30	Jan 16, 2026 15:10	NARAHARI-ext, Bhargavi	
v. 29	Oct 16, 2025 10:19	LEIGHTON-ext, Dean	CR0086 - Descope Thai Language. Thai language was included as one of the languages required
v. 28	Sept 13, 2024 04:16	NARAHARI-ext, Bhargavi	
v. 27	Sept 12, 2024 15:08	WENNIN GER-ext, Sascha	

v. 26	Sept 12, 2024 14:43	WENNIN GER-ext, Sascha
v. 25	Sept 10, 2024 06:58	NARAH RI-ext, Bhargavi
v. 24	Sept 09, 2024 19:34	NARAH RI-ext, Bhargavi
v. 23	Sept 09, 2024 19:13	NARAH RI-ext, Bhargavi
v. 22	Sept 09, 2024 19:09	NARAH RI-ext, Bhargavi

[Go to Page History](#)

Workflow history

Title	Last Updated By	Updated	Status
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