

KDD071 - Development System Approach

Status	Approved
Owner	NARAHARI-ext, Bhargavi
Stakeholders	

Issue

There are several SAP development system base configuration approaches available as a starting point for the project, each offering different levels of pre-configured settings and customization. This document aims to evaluate and recommend the most suitable approach based on the specific project requirements, solution scope, and business goals. The base configuration options available are:

- From Client 000: A basic starting point that involves copying the initial, "out of the box" config client
- From SAP Best Practices: A pre-configured solution based on SAP's industry-standard templates, offering a fast and efficient way to implement best practices for various business functions.
- From standard EML (Enterprise Management Layer): A configuration which extends standard SAP best practices with certain integration configuration useful for multi-national companies, providing a predefined structure and set of business processes commonly used across various industries
- From ChemDirect by Accenture: A specialized solution developed by Accenture for the chemical industry based on the SAP best practice, offering a highly tailored configuration designed for businesses in this sector.

This document will assess the advantages, limitations, and suitability of each approach to determine the best fit for the project's scope and objectives.

Recommendation

It is recommended to adopt the **SAP Best Practices (BP) client approach** for the development landscape, leveraging pre-selected scope items. This approach establishes a foundational system preconfigured with settings aligned to both Syensqo and SAP S/4HANA. By implementing this strategy, the SAP system remains free from "legacy" ECC-era configuration, which significantly enhances system compatibility and minimizes potential implementation challenges. Adhering to this methodology effectively mitigates the risk of introducing unsupported compatibility issues, non-functional configuration, or configuration which is not part of SAP's future roadmap.

This approach also provides the flexibility to address any missing configuration by copying them from client 000. However, this process will be carefully governed to ensure that only relevant configuration are transferred, preventing the inclusion of settings or functionalities incompatible with S/4HANA.

Two sub-options exist within this methodology, and it is strongly recommended to proceed with the **"BP Client" option** instead of the "Merged Client" option. Selecting the BP Client ensures a clean, streamlined system setup devoid of unsupported configurations, which offers clear advantages from both a development perspective and long-term maintenance standpoint.

While this approach carries a minor risk—specifically, requiring consultants to manually copy certain missing configurations from client 000 into the Best Practices client—the benefits significantly outweigh the challenges. A clean, well-optimized system tailored to S/4HANA standards offers considerable advantages, including improved compatibility, simplified maintainability, and streamlined upgrades for future requirements.

Additionally, irrespective of the option selected, it is strongly recommended to execute the **SAP Readiness Check for SAP S/4HANA upgrades** on a regular basis, preferably every alternate month. This readiness check should focus on custom code, compatibility items, and overall system configurations to ensure that all functionality, configurations, and custom code remain aligned with S/4HANA standards.

It is further recommended to maintain a dedicated **EML sandbox instance** separate from the project landscape throughout the detailed design phase. This sandbox will facilitate a deeper analysis of gaps between SAP Best Practices and EML scope items while also enabling the reuse of configurations and demonstrations developed during the conceptual design phase.

Background & Context

There are multiple SAP development system configuration approaches available for the project, each providing varying levels of pre-configured settings, flexibility, and customization. This document is intended to evaluate these options and recommend the most suitable approach based on the project's specific requirements, level of complexity, and overarching business objectives. The evaluation takes into account factors such as system compatibility, ease of implementation, rework effort, and alignment with SAP S/4HANA standards.

The available configuration options include:

SAP Client 000: is initial and base client created during the SAP S/4HANA system setup. It is the starting point for system configuration and administration tasks. It provides basic, unconfigured environment to start configuring the system, typically without any business-specific data. The customizations in this client are provided out of the box by SAP for a model company. The client can then be copied to other client for company specific config and customizations. Following are some of the uses:

- System Administration: Used by SAP Basis and system administrators for tasks like system configuration, user setup, and client management.
- Testing and Troubleshooting: In some cases, Client 000 can be used for initial testing and troubleshooting before applying specific business configurations to other clients.

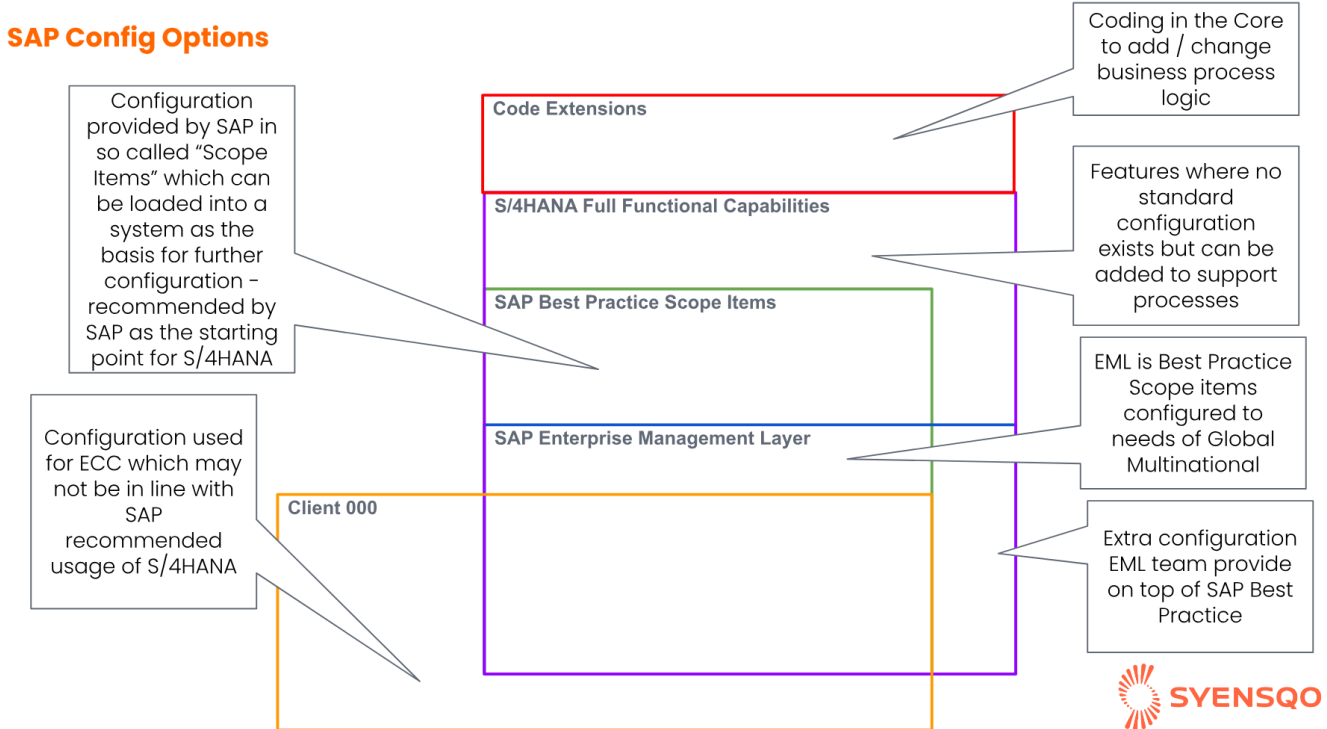
This client has been in existence since R/3 and SAP has incrementally delivered the content. Therefore this client contains configuration used for ECC which is not in line with SAP recommended usage of S/4HANA.

SAP Best Practices Client: provides a valuable set of industry-aligned templates and pre-configured processes that enable organizations to implement SAP solutions quickly, efficiently, and with lower risk. These best practices serve as a solid foundation for businesses looking to adopt SAP software, particularly for those who want to follow industry standards while maintaining flexibility for further customization. By leveraging SAP Best Practices, organizations can ensure smoother transitions to SAP environments, whether on-premise or in the cloud, while optimizing their business processes from the outset.

SAP EML: provides a ready-to-use **global template** with standard end-to-end business processes, based on leading best practices and real-life implementation experience.

Accenture ChemDirect: pre-configured, end-to-end S/4HANA solution for the chemical industry, based on SAP's best practices. ChemDirect includes pre-packaged project documentation, such as process flows, end-to-end business flows, key design decisions, configuration rationales, and more. It also covers scope components like the pre-configured S/4 solution for chemicals, external system integrations, commonly used WREFUMs, reports, and other essential elements.

Below is an image illustrating the coverage of each of these options in comparison to the S/4 solution.



Assumptions

The SAP system clients referred in this document are to support config and development. System clients with other purposes ex: data loads, reference clients etc.. are not represented in this document

Development standards document will have a detailed set of guidelines on how best to align the custom code to S/4 HANA / other platform standards (This includes evaluation of turning on ABAP Cloud Language Variant for the development team)

Constraints

No constraints identified at the time of writing this document

Impacts

If the SAP RISE Platform management approach is used, the best practices need to be selected and provided to SAP during the system provision phase.

The system landscape strategy should take this proposal into account as part of any landscape architecture decisions

The user provisioning and the security model should take this proposal into account as part of their design.

The S4Hana transport strategy should be updated to support this recommendation

Business Rules

No Business rules identified

Options considered

Option A: SAP Client 000

SAP Client 000 is the default base client created during the SAP S/4HANA system installation. It serves as the foundational environment for initial system setup, administration, and configuration. Delivered by SAP with standard settings and templates, this client is devoid of any business-specific data, allowing administrators to configure and customize the system as required. Client 000 can be copied to create additional clients, which are tailored for specific business purposes, such as configuration, development or testing.

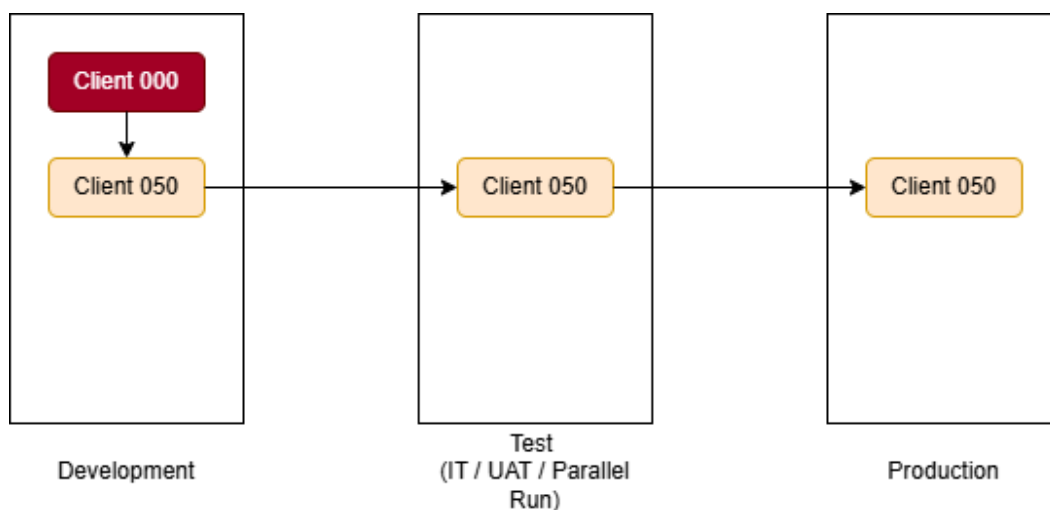
Uses of Client 000

1. System Administration: Client 000 is heavily utilized by SAP Basis consultants for essential system administration tasks, including system configuration, user creation, and client management.
2. Development Setup: As the initial client, it serves as the baseline from which other clients can be created for diverse purposes, such as development, testing, or production.
3. Testing and Troubleshooting: In some scenarios, Client 000 is used for basic testing and troubleshooting before deploying configurations to other clients.

Client 000 has all the basic configs since R3 and therefore easier for the functional consultants and development team to configure. However, it also has a lot of redundant configs that not relevant/optimised for S/4 Hana. Stricter governance process is required to make sure that the non-relevant config is not used as part of ERP Rebuild project.

Client strategy in this option:

Client	Usage	Config	Process Models	Test Scripts
000	Base client. The client is locked and no config/data is allowed	No config allowed	Not available	Not available
050	Copy of client 000. Client used for Development, Data and testing.	Base config copied from 000 Additional/Syensqo specific Config to be done by the consultants using SPRO.	Not available	Not available



Option B: SAP Best Practice

The SAP Best Practices Client is designed to provide Syensqo with a set of industry-aligned templates and pre-configured processes. These templates simplify and accelerate the implementation of SAP systems, offering a robust foundation for businesses to follow industry standards while retaining the flexibility to customize. There are a total of 349 unique best practice processes relevant for S/4HANA 2023, of which 193 are valid for Syensqo (refer to [Best practice Analysis.xlsx](#) for more details).

Uses of the SAP Best Practices Client

1. Rapid Deployment: Pre-configured settings reduce the time required to deploy SAP systems.
2. Industry Standards: Ensures organizations align their processes with globally recognized best practices.
3. Customizable Foundation: While providing ready-made templates, businesses can modify them to meet unique operational needs.

SAP Best Practices content configures a client with automatic content activation. It contains only essential configuration settings for the selected scope. There are 2 options of enabling the best practices content

1. Best Practices Client - configuration tables that are not covered by the Best Practices content are empty.
2. Merged Client - with all client 000 config and the config from Best Practices

Alternative	Name	Best Practice Content	Client 000 Content	Initial Configuration Effort in Areas Covered by BP	Initial Configuration Effort in Areas Not Covered by BP	Risk of having non-Relevant config in the system
1	Best Practices client (BP Client)	Yes	No	Lower	Higher	Lower
2	Merged client (with all client 000 reference settings and BP content)	Yes	Yes	Lower	Lower	Higher

Based on the above, following is the recommendation provided by SAP

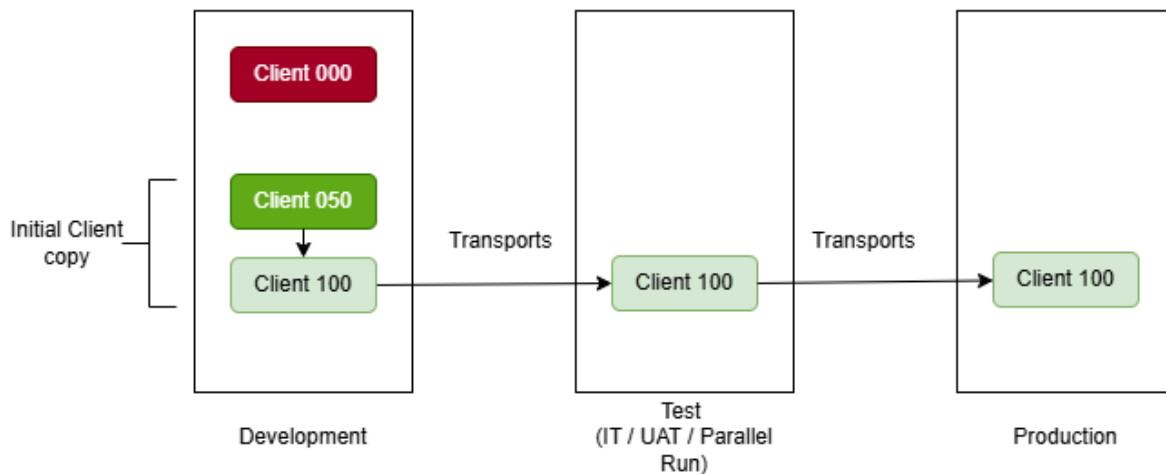
- If the project scope is large and is not covered by Best Practices content: choose a merged client
- If the Best Practices content covers all or nearly all of project requirements (based on a review of the delivered process flows): choose a Best Practices client

Client Strategy in this option

Client	Usage	Config	Process Models	Test Scripts
000	Base client. The client is locked and no config/data is allowed. Consultants have display access to this client to validate and copy any required config to 100	No config allowed	Not available	Not available
050	Best Practice Client	Selected BP Content is activated (Refer to the attachment for Syensqo relevant BP content)	Available	Available
100	Development Client based on the Best Practice client	BP Content is activated Additional/Syensqo specific Config to be done by the consultants using SPRO.	BP process models should be updated based on the Syensqo specific config	BP test scripts should be updated based on Syensqo specific config

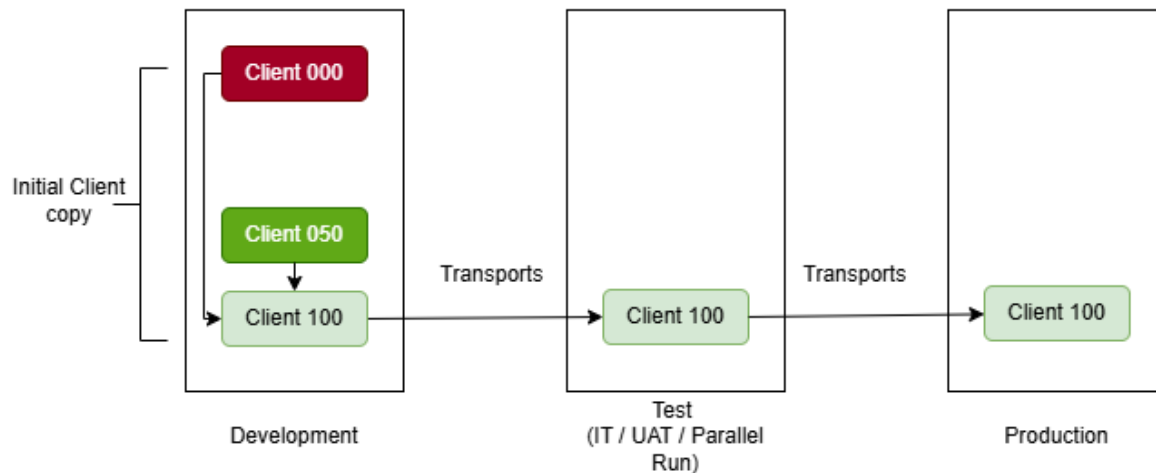
Note: There might be additional clients delivered as part of the Best Practices and based on the usage it will be determined if the clients will be retained or deleted.

Option 1 - BP Client



Client 100 is based on the Best Practices client 50. Consultants are given display access to client 000 and can copy config into 100 where required

Option 2 - Merged Client



Client 050 is best practise client. Client 100 which is a merged client, is based on the Best Practices client 50 and also contains the based config of 000.

Option C: SAP EML

SAP EML delivers a global, ready-to-use template that includes standard end-to-end business processes based on SAP's best practices and real-world implementation experience. It is designed to serve as a universal foundation for businesses across various industries, ensuring streamlined adoption of SAP solutions.

Uses of SAP EML

1. Global Template: Offers a single configuration that can be used across multiple geographies.
2. End-to-End Processes: Covers a comprehensive range of business processes, including procurement, sales, finance, and logistics.
3. Scalability: Ideal for large organizations operating in multiple regions with diverse business requirements.

EML is built in an SAP internal staging area based on customer requirements that are communicated to SAP in a questionnaire and then deployed in Syensqo environment via the database backup / restore technology.

Hence, the enterprise management layer can only be deployed as an appliance (or system), it cannot be activated or partially activated based on transports or BC sets. It cannot be combined with a legacy system nor with already activated SAP Best Practices in a system.

Following are all the processes which are not covered as part of best practices and are available in EML as service items

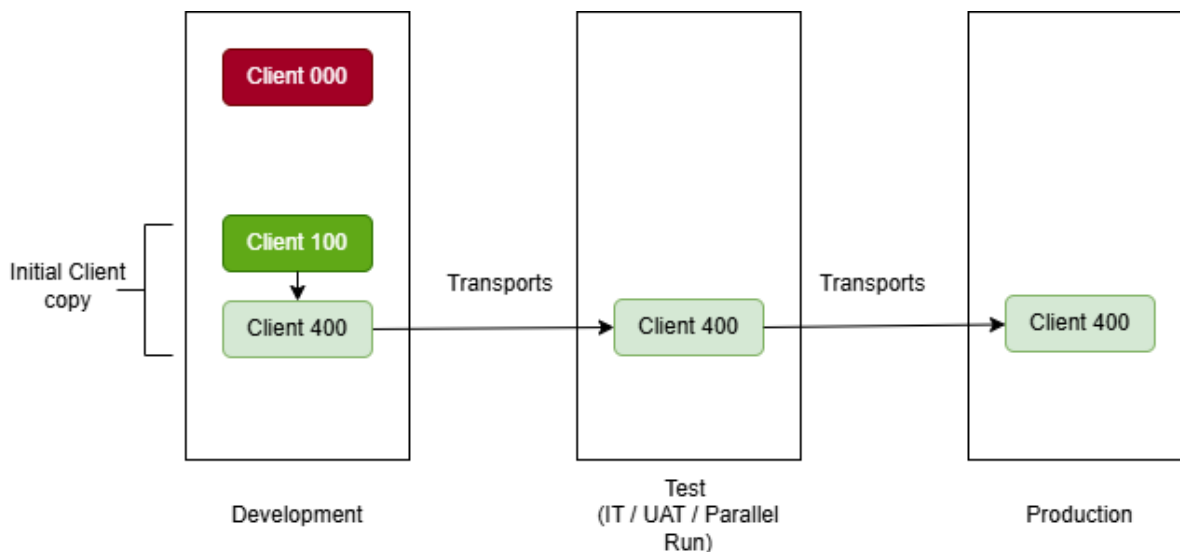
- Intercompany Processes (between 2 countries)

- Cross-plant stock transfers within 1 county of your choice
- Project System for Accounting
- Engineering Projects
- Billing of Projects (within 1 country) for fixed price and resource-related billing
- Intercompany Billing of Projects (between 2 countries) for fixed price and resource-related billing
- Intercompany Billing of Services

Client Strategy in this option

Client	Usage	Config	Process Models	Test Scripts
000	Base client. The client is locked and no config/data is allowed. Consultants have display access to this client to validate and copy any required config to 400	No config allowed	Not available	Not available
100	EML delivered Config & sample master data	No config allowed	Available	Available
400	Copied from Client 100 and enhanced with Syensqo specific configuration	Allowed	EML process models should be updated based on the Syensqo specific config	EML test scripts should be updated based on the Syensqo specific config

Note: There might be additional clients delivered as part of the EML and based on the usage it will be determined if the clients will be retained or deleted.



Option D: Accenture ChemDirect

Accenture ChemDirect is a specialized solution built on SAP Best Practices, tailored specifically for the chemical industry. It addresses the unique requirements of chemical companies, including compliance with industry regulations, handling hazardous materials, and managing complex supply chains.

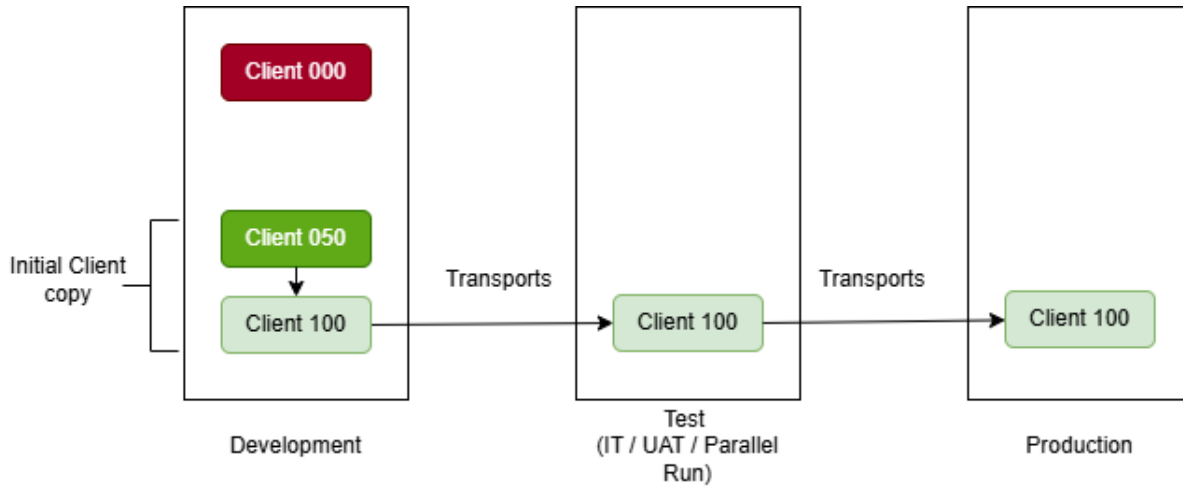
Uses of ChemDirect

1. Chemical-Specific Processes: Provides pre-built workflows and templates designed for chemical manufacturing and distribution.
2. Compliance Management: Helps ensure adherence to industry regulations and standards.
3. Supply Chain Optimization: Streamlines the handling of complex supply chains common in the chemical sector.

Client Strategy in this option

Client	Usage	Config	Process Models	Test Scripts
000	Base client. The client is locked and no config/data is allowed. Consultants have display access to this client to validate and copy any required config to 400	No config allowed	Not available	Not available
050	Accenture ChemDirect reference Client	Accenture ChemDirect transports are implemented	Available in very basic PowerPoint slides only	Available as external documents

100	Development Client based on Accenture ChemDirect client	Accenture ChemDirect Content is activated Additional/Syensqo specific Config to be done by the consultants using SPRO.	Process models needs to be redrawn in Signavio based on Accenture process models and the changes	BP test scripts should be updated based on Syensqo specific config
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Client 050 is a ChemDirect reference client. Client 100 is based on Accenture ChemDirect client 50. Consultants are given display access to client 000 and can copy config into 100 where required

Evaluation

	Option A: SAP Client 000	Rating	Option B: SAP Best Practice	Rating	Option C: SAP EML	Rating	Option D: Accenture ChemDirect	Rating
Functionality Coverage	Basic SAP out of the box config	Low	Covers around 349 unique scope items including Inventory, EWM, GTS etc.	High	EML contains a subset of SAP best practices ~308. EML coverage is biased towards Finance functionality	Medium	A subset of best practices ~209 and 57 scenarios that Accenture built.	Medium
Applicability for Syensqo	A lot of config still exists in Client 000 which is not relevant for Syensqo.	Low	193 scope items are applicable for Syensqo	High	170 out of 193 scope items are available in EML 7 scope items available in EML which do not exist in Best Practice <ul style="list-style-type: none"> Intercompany Processes (between 2 countries) Cross-plant stock transfers Project System for Accounting Engineering Projects Billing of Projects for fixed price and resource-related billing Intercompany Billing of Projects for fixed price and resource-related billing Intercompany Billing of Services 	Medium	154 out of 193 scope items are available in ChemDirect. Out of these 47 scenarios are enhanced with custom developments. 2 of 47 scenarios developed by Accenture are applicable for Syensqo out of the box. All the other scenarios require some development / additional configuration. 3 of 47 scenarios developed by Accenture are applicable for Syensqo. The others are not applicable or built using older technologies which Syensqo seeks to avoid; e.g. ChemDirect reports are built using BW or embedded S/4HANA analytics while Syensqo aims to use DataSphere for reporting. ChemDirect contains many SAP GUI transactions whereas Syensqo aims to use Fiori.	Medium
Speed of deployment - Instances	Available out of the box - No additional downtime required	High	Scope items needs to be activated.	Low	EML is installed as an appliance and therefore no downtime	Medium	Transports needs to imported	Medium

Quality of the scope items	Not all configuration is tested by SAP	Low	Tested by SAP, though with varying levels of depth and detail.	Medium	Tested by EML team before the appliance is deployed	High	Tested by Accenture team	High
Config Effort	80% - Most of the config has to be done by the consultants from scratch	Low	70% - Some of the config provided out of the box can be re-used. Missing config needs to be copied from Client 000	Low	70% - Some of the config provided out of the box can be re-used. Missing config needs to be copied from Client 000	Low	70% - Some of the config provided out of the box can be re-used. Missing config needs to be copied from Client 000	Low
Additional rework by consultants	None	High	Minimal amount of rework - Majority of the config delivered is not disruptive Test scripts, Documentation will also need to be changed based on the changes in the config	Medium	Maximum rework - A lot of pre-delivered content has been enhanced from the Best Practice content and will need additional effort to clean it up if not used by Syensqo Test scripts, Documentation will also need to be changed based on the changes in the config	Low	Maximum Rework - Multiple enhancements and pre delivered content that needs to be cleaned-up or updated based on Syensqo scenarios Test scripts, Documentation will also need to be changed based on the changes in the config	Low
Documentation - Process Models	No documentation available	Low	Process models available in Signavio, however different module are represented at different levels	High	Process models available in Signavio, however different module are represented at different levels	High	Process models are drawn in Visio as static pictures. BPMN format not followed	Low
Test Scripts	No test scripts	Low	Test scripts available for out of box best practice scenarios	High	Test scripts available	High	Test scripts available	High
Localization	Localization existing in out of the box config - However not very consistent	Low	Covers 42 countries	Medium	43 countries with full scope and 6 countries with a reduced, Finance-centric scope that covers statutory requirements	High	Not known	N/A
Risks	Might cause issues with upgrades if compatibility items config i.e. old ECC config exists	Medium	No issues with upgrades	High	No issues with upgrades	High	Might cause issues with upgrades if compatibility items config i.e. old ECC config exists	Medium
Cost	No additional cost	High	No additional cost	High	Additional Cost	Low	Additional Cost	Low

See also

File	Modified
Microsoft Excel Sheet SAP BP for PCE v1.2 - updated v3.xlsm	Sept 19, 2025 by WENNINGER-ext, Sascha
PDF File KDD071 approval.pdf	May 12, 2025 by DANKIR-ext, Soukaina
Microsoft Excel Spreadsheet Best Practise Analysis.xlsx	Dec 19, 2024 by NARAHARI-ext, Bhargavi

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Change log

Version	Published	Changed By	Comment
CURRENT (v. 32)	Jul 14, 2025 16:18	WENNINGER-ext, Sascha	
v. 31	Feb 11, 2025 16:37	WENNINGER-ext, Sascha	
v. 30	Jan 20, 2025 16:02	NARAHARI-ext, Bhargavi	
v. 29	Jan 20, 2025 15:51	NARAHARI-ext, Bhargavi	
v. 28	Jan 17, 2025 11:14	NARAHARI-ext, Bhargavi	

v. 27	Jan 17, 2025 11:04	NARAHARI-ext, Bhargavi
v. 26	Jan 07, 2025 16:04	GONZALVEZ-ext, Antonio
v. 25	Jan 07, 2025 10:11	WENNINGER-ext, Sascha
v. 24	Jan 07, 2025 04:04	NARAHARI-ext, Bhargavi
v. 23	Dec 19, 2024 11:39	NARAHARI-ext, Bhargavi

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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 14, 2025	Actor	Type	Activity	Version
Approved	WENNINGER-ext, Sascha	Edit	updated the page at 4:18 pm	
		State	changed state to Approved at 2:18 pm	v32
Edited following Approval	WENNINGER-ext, Sascha	State	gave <i>Minor change</i> approval at 2:18 pm	
		State	changed state to Edited following Approval at 2:18 pm	v32
Apr 29, 2025				
Approved	LEIGHTON-ext, Dean	State	gave <i>Minor change</i> approval at 7:05 am	
			<i>BN: Endorsed by Owen Pettiford</i>	
		State	changed state to Approved at 7:05 am (State override)	v31
			<i>BN: Endorsed by Owen Pettiford</i>	
Pending Stakeholder Review	LEIGHTON-ext, Dean	State	gave <i>Minor change</i> approval at 7:05 am	
			<i>BN: Endorsed by Owen Pettiford</i>	
Feb 11, 2025				
	WENNINGER-ext, Sascha	Edit	updated the page at 4:37 pm	
		State	changed expiry date to '18 Feb, 2025 03:38 pm' at 3:38 pm	
		State	changed state to Pending Stakeholder Review at 3:38 pm	v31