

Hands-On Lab: SAP Tools for an Implementation, Upgrade, or Conversion to S/4HANA

Your Presenters and Lab Team:

- Kurt Hollis, SAP Architect, Manager
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- Gopinath Gadde, SAP Senior Manager
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— Deloitte Consulting, LLP

Deloitte.

Las Vegas

2024

SAPinsider



In This Session

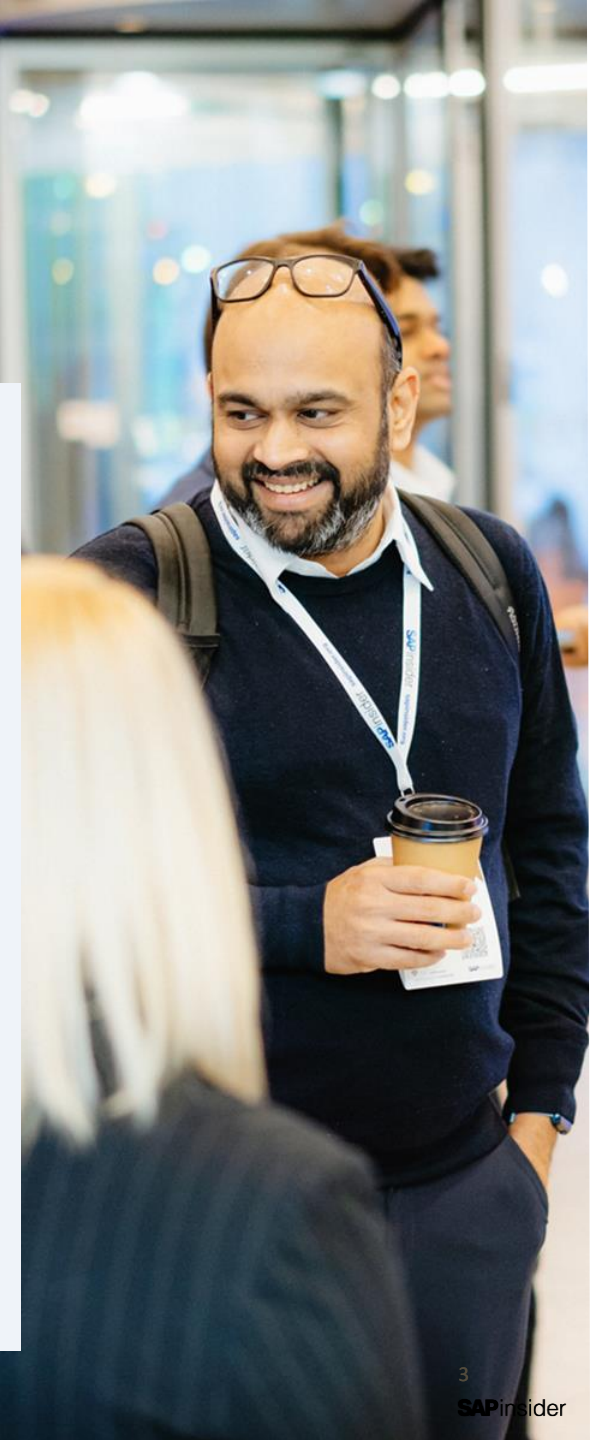
- HANDS-ON LAB including Demonstrations and Lecture
- Lab exercises divided into sections where you will gain practical instruction to utilize S/4HANA tools
- SAP tools for implementation, upgrade, and migration/conversion to SAP S/4HANA
- Steps for preparing for an implementation, upgrade, or conversion to S/4HANA
- Capabilities of Readiness Checks, BTP “Business Technology Platform” tools.
- Focus Build with Solution Manager used for the project.
- Expert instructors guide you through key processes and tasks

Session Description

This session details the SAP tools for implementation, upgrade, and conversion to SAP S/4HANA including hands on exercises. Follow through the steps for preparing for an implementation, upgrade, or conversion to S/4HANA. Perform HANA sizing analysis, critical checks in existing system before upgrade. Using capabilities of BTP “Business Technology Platform” tools. Look at Focus Build in Solution Manager used for the project.

Attendees will learn the following along with the hands-on exercises:

- Review the tools and capabilities of the SAP Readiness Checks to analyze the source system and how to view the resulting reports.
- Perform checks focusing on custom code analysis, add-on compatibility, and other important items.
- How to utilize the SAP Business Technology Platform and the services it provides.
- Review the tools available for new SAP S4/HANA implementations such as SAP Focus Build.



What We'll Cover

Topic 1 - S/4HANA Release Information and Overview of the three methods for moving to S/4HANA.

Topic 2 and Lab 1 - Focus Build

Topic 3 and Lab 2 - Readiness Checks for SAP S/4HANA including Hands-On Lab

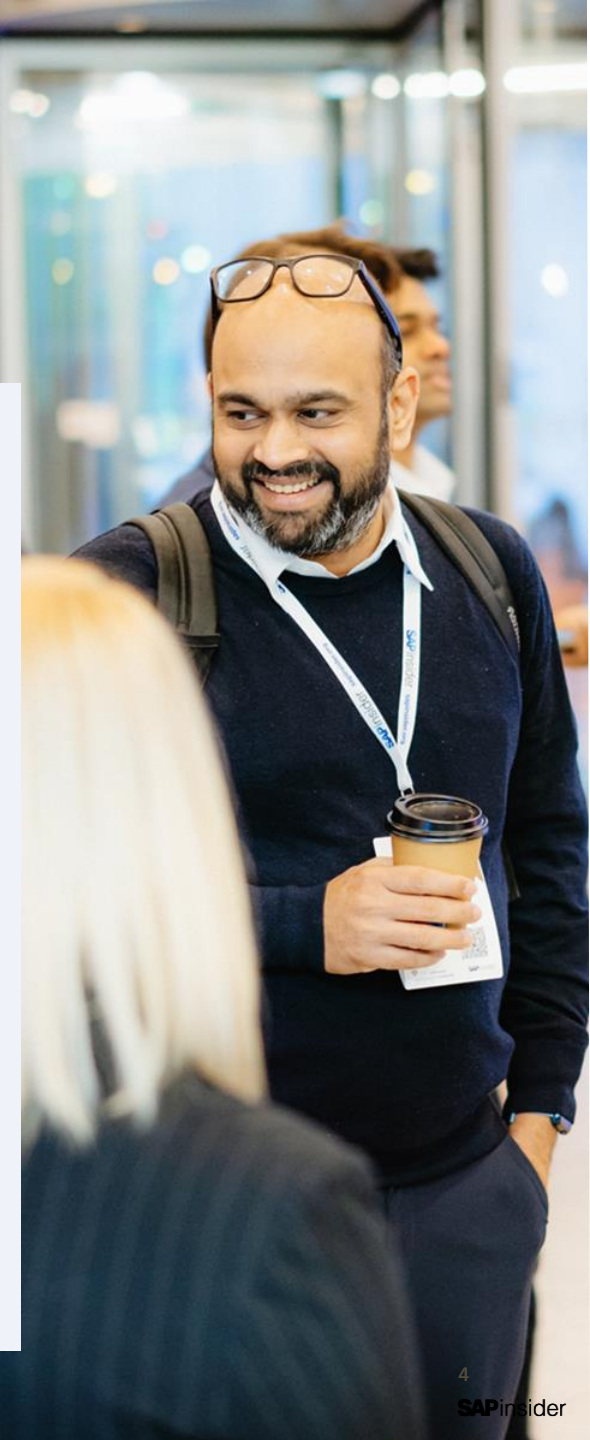
Topic 4 - Tools for Upgrade and Conversions to S/4HANA

Topic 5 and Lab 3 - Data Migration Using Fiori App and Lab Walk Through - Instructor Led

Topic 6 and Lab 4 – “BTP” Business Technology Platform Overview and Demonstration of Code Conversion followed by Hands-on Lab

Topic 7 and Lab 5 - Fiori Activation and Configuration and Lab Walk Through (Instructor Led)

Lab 6 - Fiori Upgrade Impact Analysis (Optional)



Hands on Labs

Lab 1 - Focus Build (Kurt Hollis)

Lab 2 - SAP Readiness checks and Simplification Checks (Kurt Hollis)

**Lab 3 - Data Migration (Migrate your Data Fiori App – Instructor Led Exercise)
(Indraneel Sen)**

Lab 4 - SAP Business Technology Platform services for S/4HANA (Gopinath Gadde & Deepanshu Mishra)

Lab 5 - Fiori Activation and Configuration - Instructor Led Exercise (Indraneel Sen)

Lab 6 – Fiori Upgrade Impact Analysis (Optional) (Indraneel Sen)

Topic 1 - Overview and Introduction

Overview and Introduction

- Release Information
- Deployment models for S/4HANA
- New Implementations of S/4HANA
- Upgrades of S/4HANA

Why move to S/4HANA from SAP ERP 6.0?

Why move to S/4HANA from SAP ECC?

- Support ending for SAP ECC in 2027, strategic direction
- S/4HANA is designed to make ERP more modern
- Faster and easier to use through a simplified data model
- Lean architecture and a new user experience built on the tile-based SAP Fiori user interface (Web based)
- Integrated with advanced technologies including AI, machine learning, IoT and advanced analytics
- Integration with SAP HANA

Support for SAP S/4HANA until the end of 2040

SAP will also provide mainstream maintenance for core applications of SAP Business Suite (ECC 6.0) software until the end of 2027 followed by optional extended maintenance until the end of 2030

Good to know → Support for SAP BW 7.5 until 2027 and SAP BW/4HANA until 2040.

Choices for S/4HANA – On-Premise, Cloud Private with Rise, or Cloud Public

SAP S/4HANA is available for On-premise or Cloud editions

SAP S/4HANA Cloud Public Edition: Based on S/4HANA Cloud Edition. This is SaaS public cloud which means that the software is licensed on a subscription basis and is accessed via the Internet. Completely managed by SAP with frequent updates to the software.

SAP S/4HANA Cloud Private Edition (Usually managed by SAP Rise).

SAP S/4HANA On-Premise: On-Premise or on own managed Cloud providers (AWS, Azure, GCP, etc)

About SAP Rise:

- Runs the S/4 HANA Cloud Private Edition which is similar versioning as the On-premise edition. SAP Rise takes care of many tasks including installation and upgrades.
- SAP Rise is basically the SAP systems running on Azure/AWS/GCP/SAP datacenter with server management supported by SAP internal personnel.
- It frees customers from the difficulties of maintaining a dedicated infrastructure and server management team.

NOTE → SAP S/4HANA Cloud extended edition (no longer positioned for new customers)

Links to documentation:

https://help.sap.com/docs/SAP_S4HANA_ON-PREMISE

https://help.sap.com/docs/SAP_S4HANA_CLOUD_PE

https://help.sap.com/docs/SAP_S4HANA_CLOUD

S/4HANA Versions and Release Dates

S/4HANA On-Premise, Private or Public Cloud Versions

- Versioning is different - Example SAP S/4HANA Public Cloud “2401” where Private Cloud or on-premise version is “2023” with FPS01

S/4HANA Public Cloud Versions

- In 2023 it has four main releases with “HFC” Hot Fix Collections releases in between. Updates take about 12 hours on Weekends.
- Releases are done monthly releases like 2401 to 2412 (see diagram)
- Yearly major releases

S/4HANA On-Premise and Private Cloud Versions

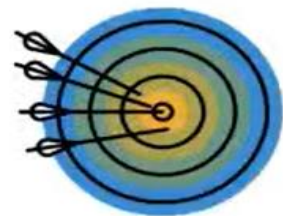
- 7 Years Mainstream Maintenance per Release
- Moving to a two-year release cycle starting with SAP S/4HANA 2023 (prior was every year)
- SAP statement since 2023 version → “No customer left behind” with software capabilities
- The 2023 release of SAP S/4HANA is a new chapter with next-generation technology and many alternative SAP S/4HANA capabilities for legacy compatibility scope items for SAP’s legacy software.
- New Extended Maintenance Option for S/4HANA 1709, 1809, 1909 (4% fee) or free extended maintenance with Rise with SAP

Release Timelines

Release	Test Upgrade	Productive Upgrade
2401 (HFC03*)	---	Jan 20, 2024
2402	Feb 3, 2024	Feb 17, 2024
2403 (HFC02*)	---	Mar 16, 2024
2404 (HFC03*)	---	Apr 20, 2024
2405	May 4, 2024	May 18, 2024
2406 (HFC02*)	---	Jun 22, 2024
2407 (HFC03*)	---	Jul 20, 2024
2408	Aug 3, 2024	Aug 17, 2024
2409 (HFC02*)	---	Sep 21, 2024
2410 (HFC03*)	---	Oct 19, 2024
2411	Nov 2, 2024	Nov 16, 2024
2412 (HFC02*)	---	Dec 14, 2024

* - indicates weekend deployment

New Release Schedule for SAP S/4HANA On-Premise or Private Cloud Versions



As of October 12th, SAP has delivered **eight SAP S/4HANA releases**

Next level of product maturity: SAP S/4HANA 2023
Delivering completeness on Compatibility Scope alternatives and concluding major renovations.

Taking the **next evolutionary step towards a release strategy, which better supports our customer base.**



Source: SAP

Difference between Release and Feature Pack

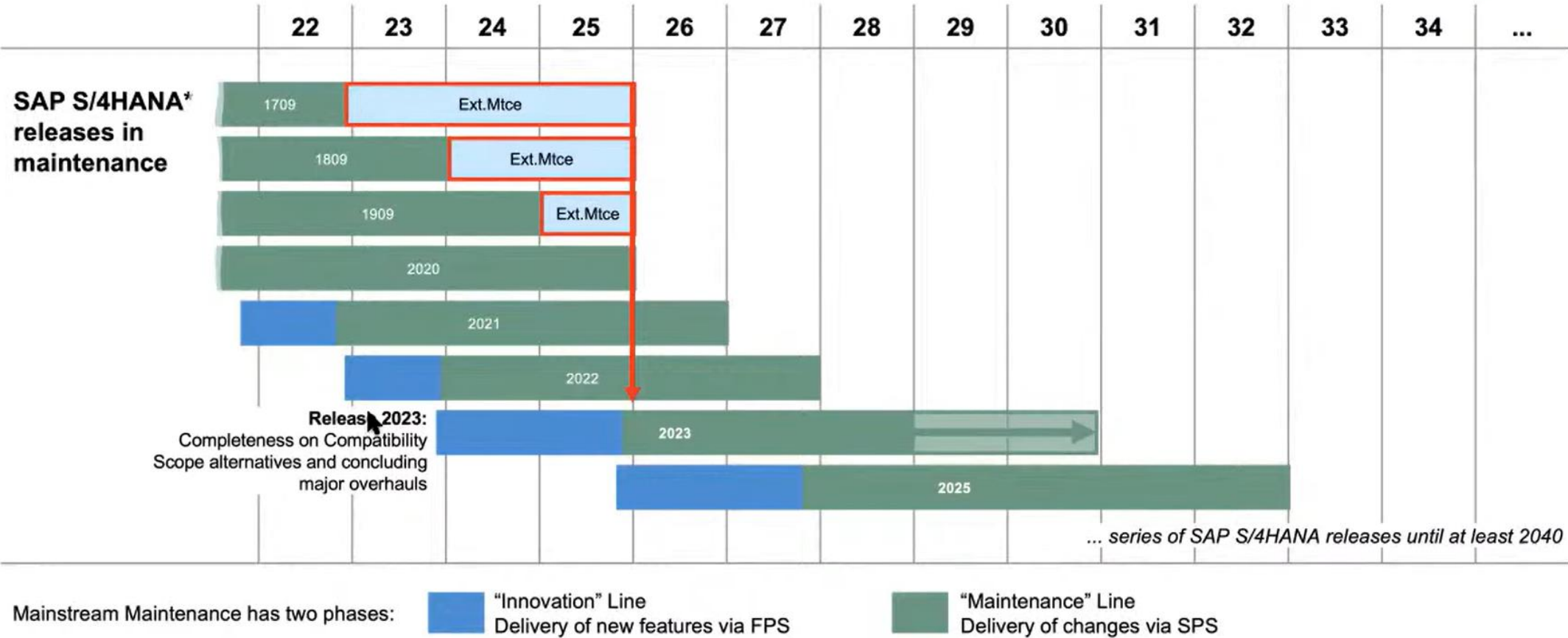
Releases:

- Requires an upgrade
- Heavy-lift with data model changes, new ABAP platform version , new Kernel, new DDIC Version
- Adoption of ABAP core Enhancements is possible
- Upgrade requires thorough testing, some adjustments, and training
- Heavily modifying development is possible
- Status of apps may change from deprecated or revoked
- Covers 300 development projects delivering ~600 innovations
- Includes the flush re-delivery of public cloud developments

Feature Pack:

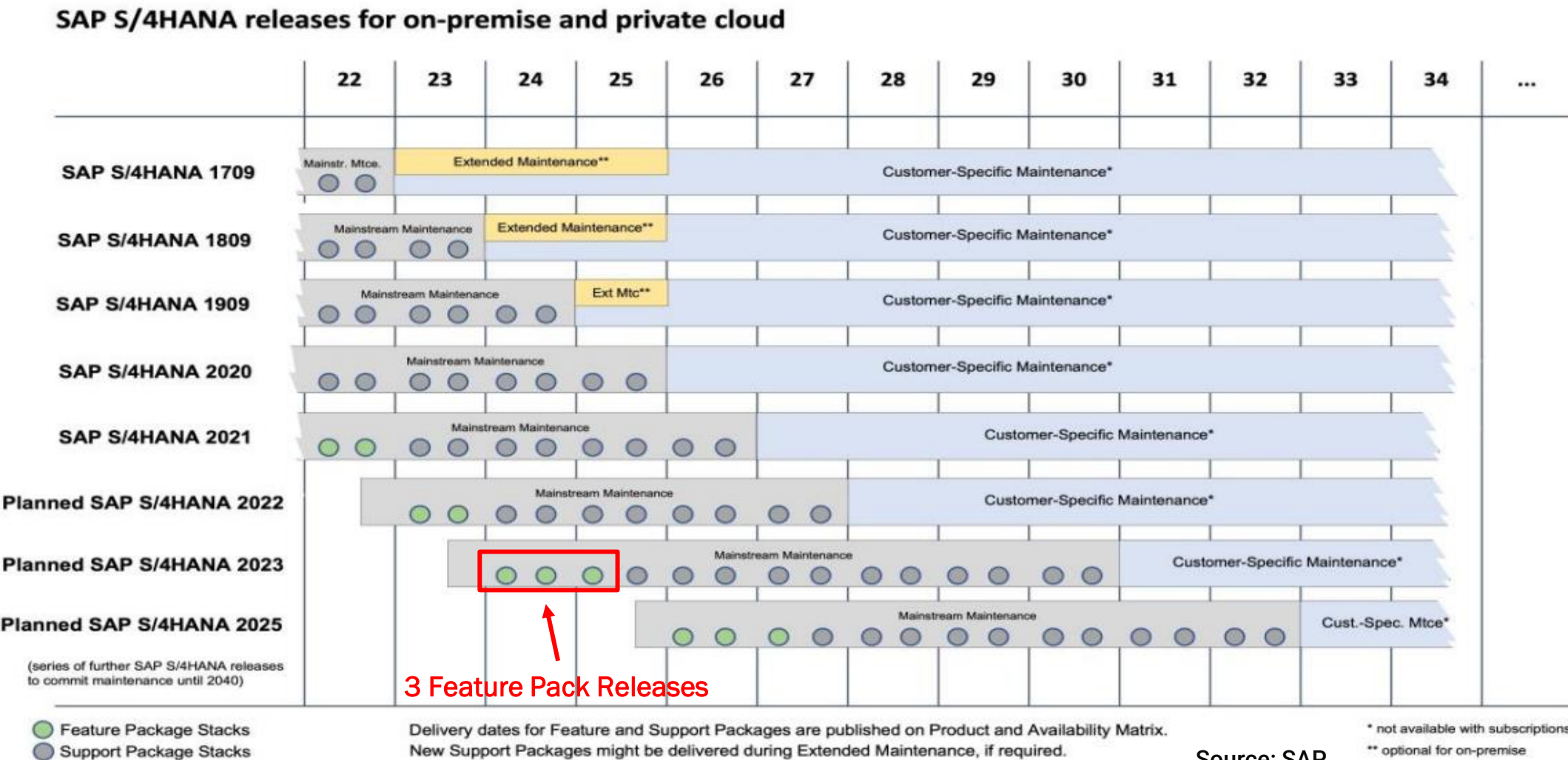
- Requires an update
- Technically it is a support package with new enhancements and features deployed on the previously delivered base release
- ABAP platform stays on previous release
- Enhanced and/or modified features need to be switched for minimal disruption of the feature pack
- This update is easier to consume than the upgrade
- Additive new application innovation
- No new deprecation and no revocation with feature packs
- Covers 50-100 projects with 50-130 innovations
- Scope is cherry picking based on actual needs

S/4HANA Releases in Maintenance



Source: SAP

SAP S/4HANA Release Schedule

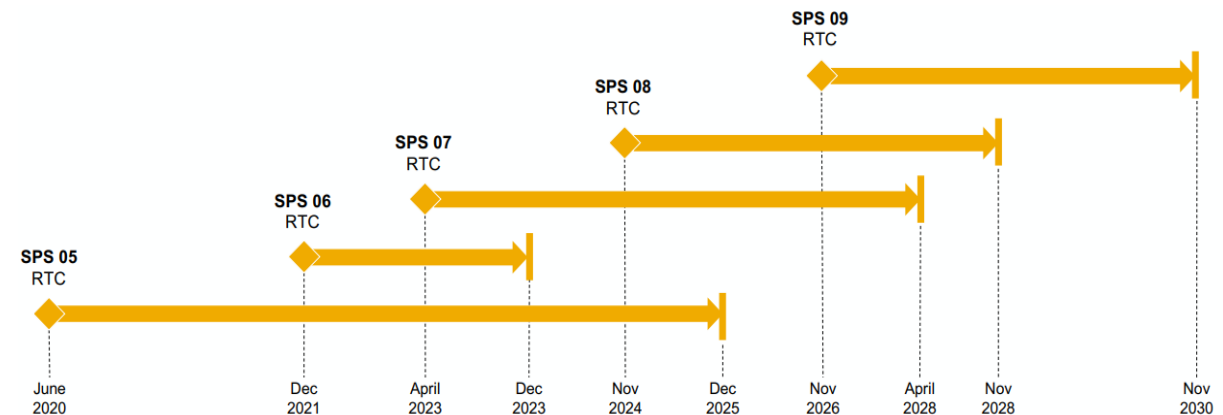


SAP HANA Release Schedule and Support

- S/4HANA runs on SAP HANA exclusively. New capabilities are introduced every time a new SAP HANA 2.0 Support Package Stack (SPS) is released.
- SAP is providing bug fixes and security patches for regular SPS for 2 years after RTC
- The SAP HANA maintenance cycle is independent from the SAP application maintenance cycles running on SAP HANA
- Can upgrade to any available Revision of a new SPS at any point in time.
- SAP HANA cockpit delivery cycle is independently from the HANA Platform with yearly sync points to the OnPrem Version.
- The SAP HANA Client version number is distinct from, and generally will not match, that of the SAP HANA server

Maintenance Revisions:

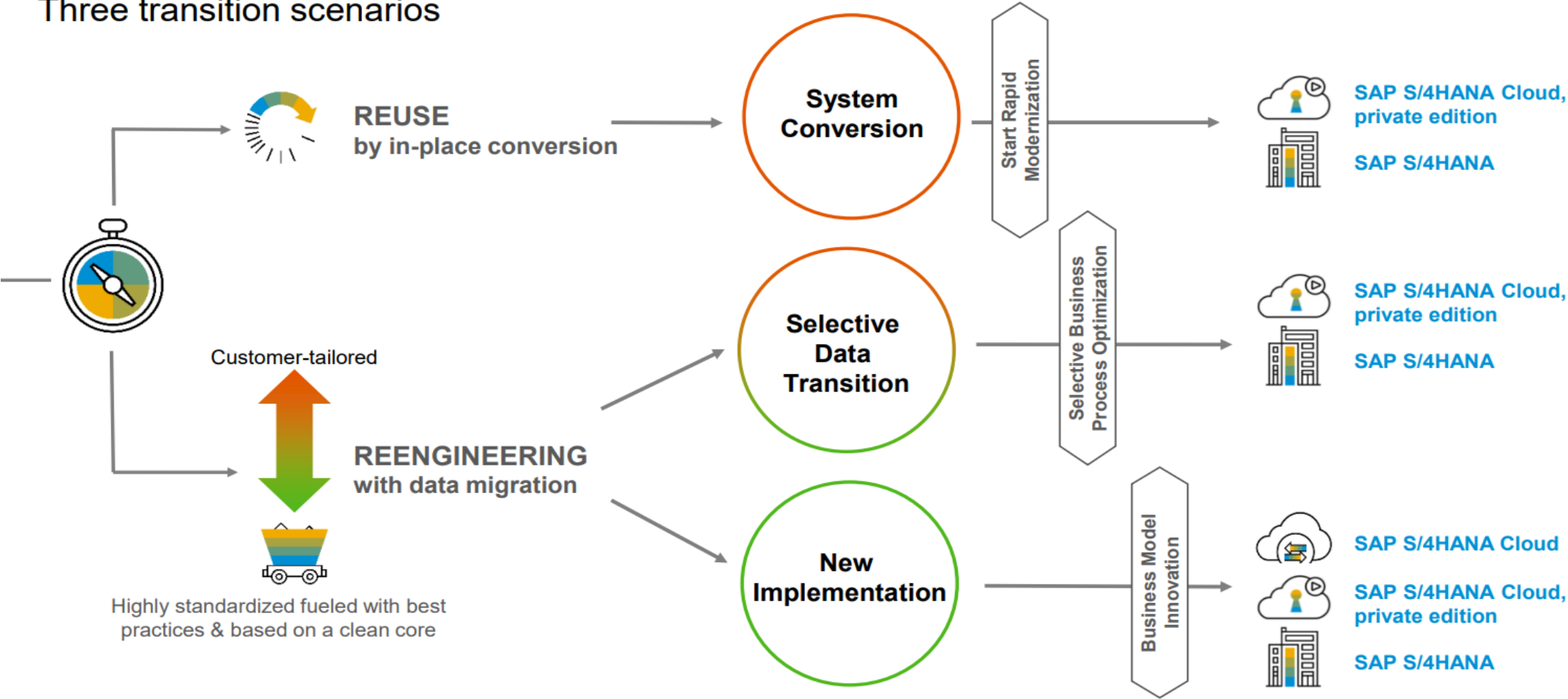
- SAP HANA 2.0 SPS05 for a period of 5 years after RTC
- SPS06 (current version SPS66) for 2 years
- SPS07 (not yet released) for a period of 5 years after RTC
- Starting with HANA 2.0 SPS08, SAP will provide new SPS every 2 years with a 4-year maintenance period
- ***SAP HANA 2.0 SPS08 is currently planned for Q4/2024***
- ***SAP HANA 2.0 SPS09 will be supported through Nov 2030***



Source: SAP

Moving to S/4HANA - Transition Scenarios

Three transition scenarios



New Implementation (Greenfield) for Moving to S/4HANA

Greenfield (new build or implementation)

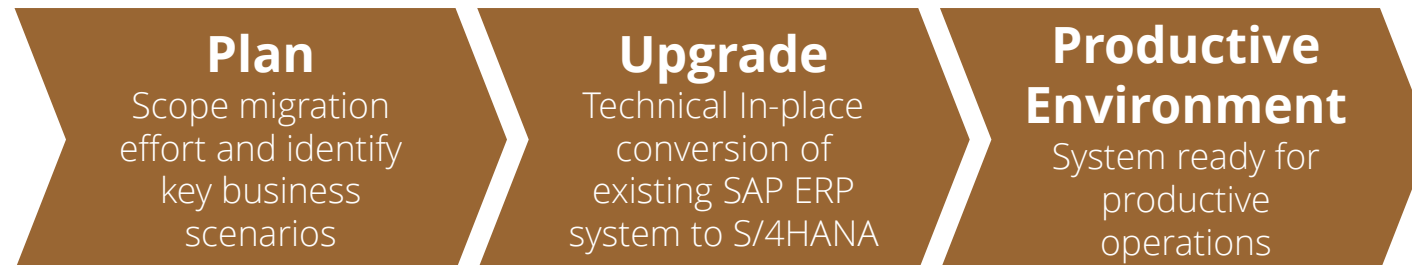
- Used for new installations of SAP (not upgrading)
- It can also be used for a complete rebuild and configuration for many reasons such as:
 - Current systems have incompatible or not supported add-ons for moving to S/4HANA so new installation is required. Selective Migration is another alternative method.
 - Opportunity to completely clean up the system and start from scratch and fully leverage the new capabilities of S/4HANA.
 - Migrate in one step to a leaner and company-wide uniform system that is close to the SAP standard. Increases flexibility to move to new releases and help lower operating costs.
 - Major changes like mergers, acquisitions, system consolidations, global support reasons.



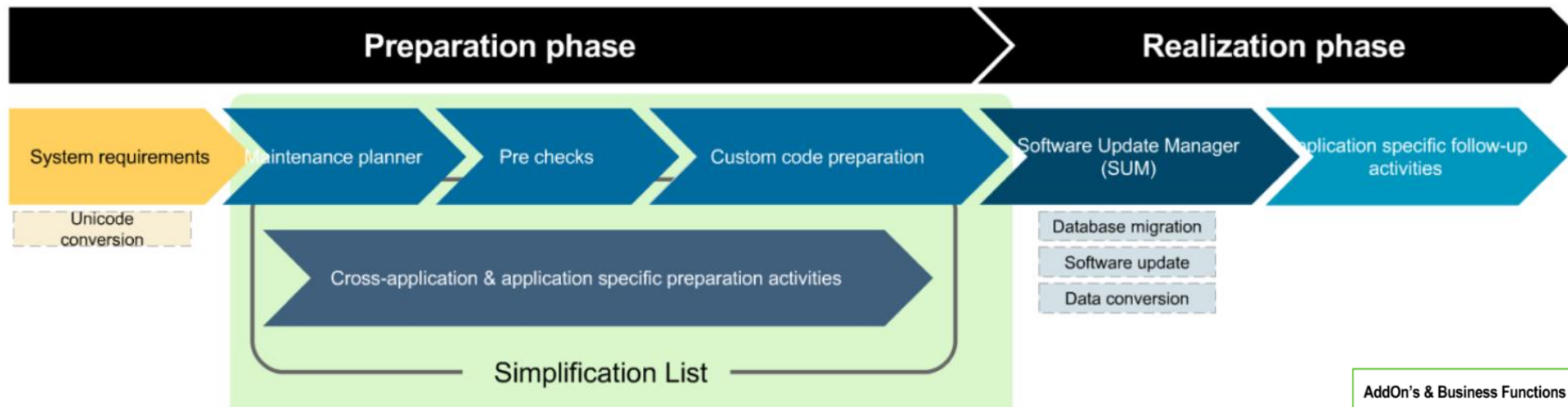
Brownfield Upgrade Scenario for Moving to S/4HANA

Brownfield (traditional upgrade)

- Convert, upgrade, and migrate from existing ERP 6.0 system (ECC) to SAP S/4HANA bringing over all existing configuration and data
- Reduced effort and duration as compared to selective transformation approach
- Reduction in complexity as there is no need to perform process redesign or transformation
- All data, including historical transaction data, is accessible in the new S/4HANA system



System Conversion Process for Upgrade (Brownfield)



- Simplification List is S/4 version dependent. Describes what happens in S/4 HANA to individual transactions and solution capabilities.
- Custom Code Check is needed against the Simplification Database to understand the compatibility of the custom code in S/4 and if it is required in S/4 HANA version.

Custom Code & Custom Dev

- Custom Code must be analyzed with respect to SAP S/4HANA compliance, based on the SAP S/4HANA simplification database
- SAP Readiness Check provides BOM of affected objects as well as SAP Custom Development Projects (CDP's)
- An in-depth custom code management activities to follow during project execution

Simplification items

- Simplification Items represent application or architecture changes in comparison to SAP ERP
- About 470 Simplification Items exist for SAP S/4HANA 1610
- They are grouped by business priority (e.g. Core Finance) and industry, respectively

AddOn's & Business Functions

- SAP AddOn's and Business Functions as well as 3rd party AddOn's have to be checked for their compatibility with SAP S/4HANA
- SAP software is listed and rated
- 3rd party software is listed only



Transactions

- SAP GUI transactions replaced or deprecated in SAP S/4HANA, such as Classic MM-PUR GUI transactions

SAP S/4HANA Sizing

- To prepare for SAP S/4HANA, a system sizing is the baseline for further discussions regarding the future target size
- SAP Readiness Check summarizes the technical sizing result so that customers can further engage internally, with SAP or with partners to discuss the future target system size

Recommended SAP Fiori Apps

- SAP Fiori apps recommended based on the transaction usage history in the evaluated system

Source: SAP

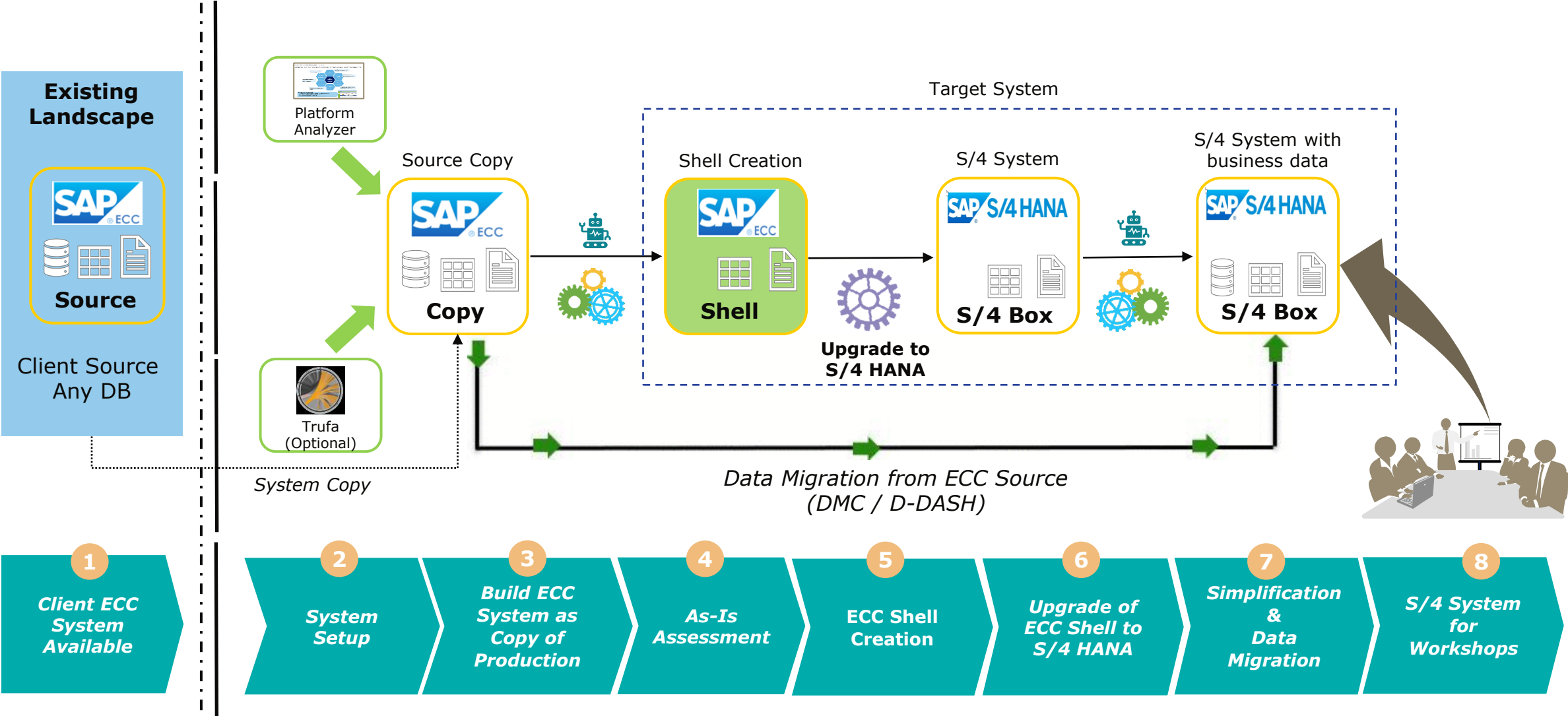
Methods to use for Moving to S/4HANA - Selective Migration

Selective Migration (Data is migrated selectively using tools)

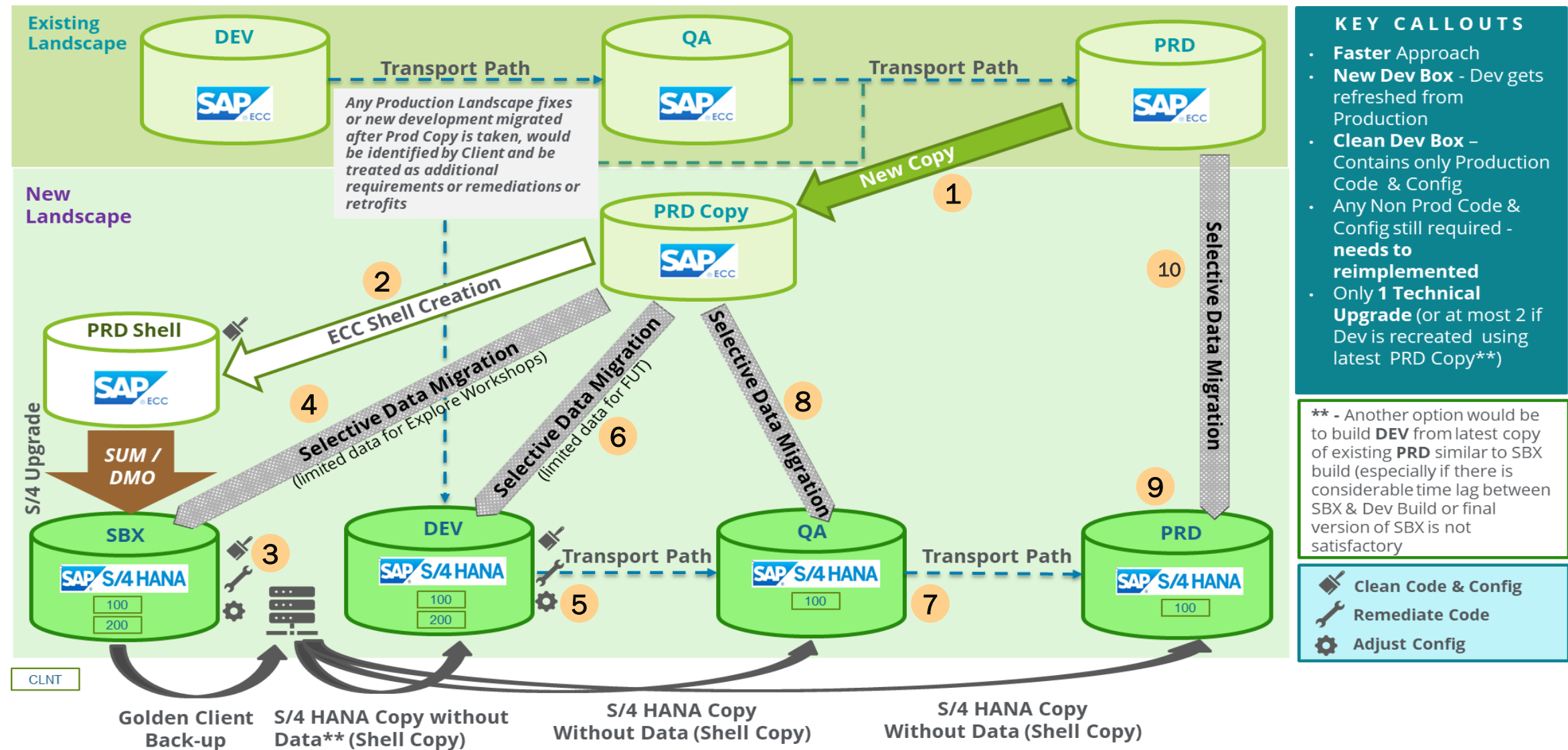
- Opportunity to "carve out" data from existing system and migrate both data and application selectively to the new S/4HANA system
- Great opportunity to redesign in the new system utilizing the full capabilities of S/4HANA
- Similarly a new system implementation with master data load (must use tools to load the data)
- Existing configuration is brought over to help minimize rework of the configuration



Scenario 3 - Selective Transformation Journey



Example of an Actual Selective Transformation Approach



Topic 2 and Lab 1 – Focus Build

Topic 2 and Lab 1 – Focus Build

Focus → New implementations of S/4HANA

Focus Build

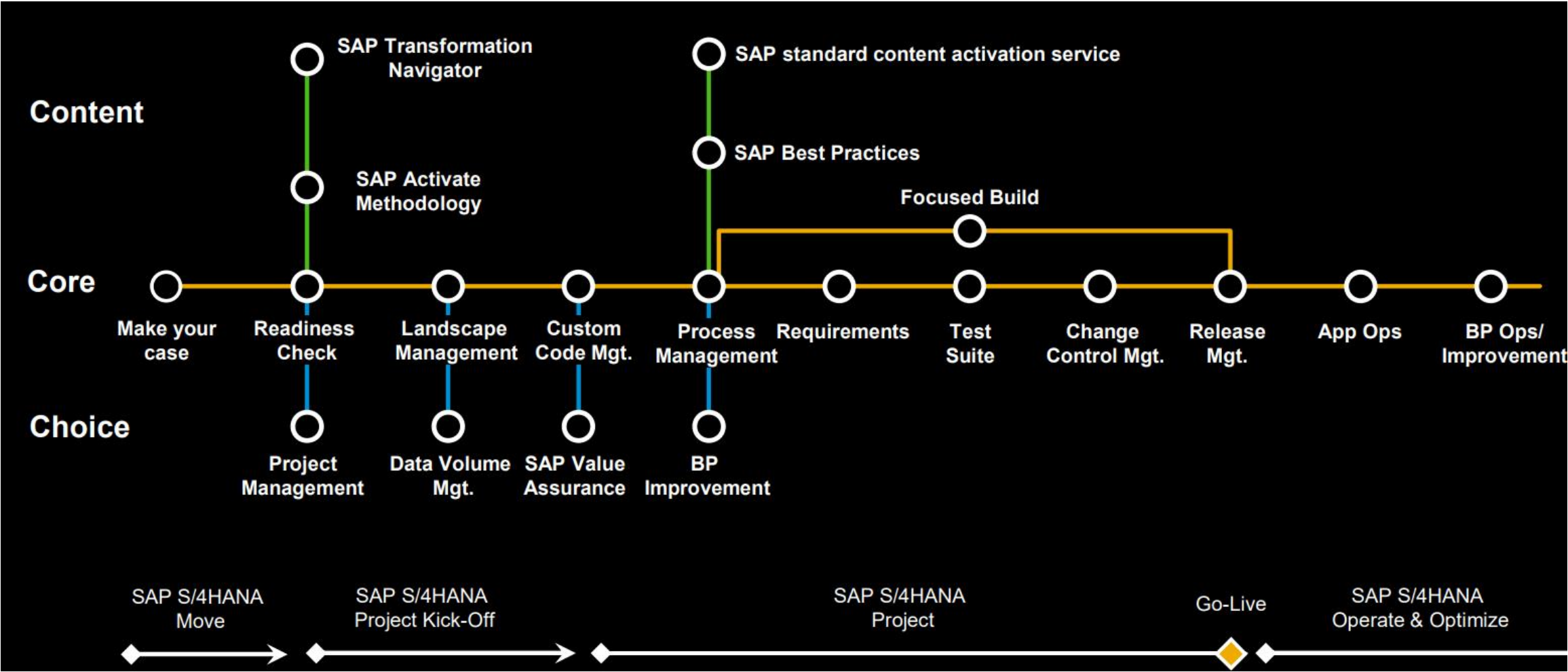
<https://solman.almdemo.com/sap/bc/ui2/flp?sap-client=001&sap-language=EN#Shell-home>

<https://solman.almdemo.com/sap/bc/ui2/flp#Shell-home>

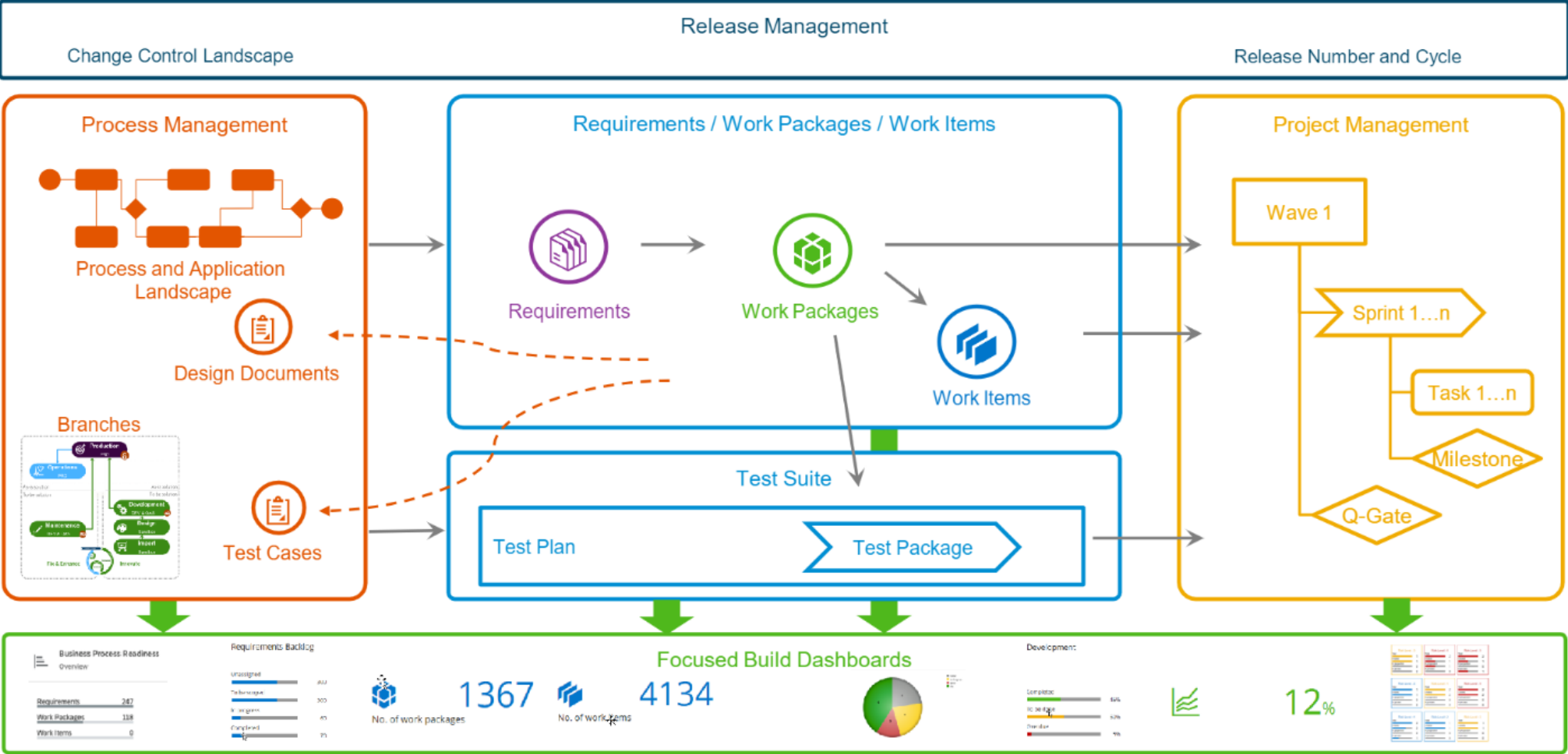
The screenshot shows the SAP Focus Build Project Manager dashboard. The browser address bar displays the URL `solman.almdemo.com/sap/bc/ui2/flp#Shell-home`. The dashboard features a top navigation bar with the SAP logo and a 'Home' dropdown menu. Below this, a horizontal menu lists various sections: 'My Home', 'Focused Build - Project Manager', 'Project and Process Management', 'Change Management', 'Test Suite', 'IT Service Management', and 'Guides'. The main content area is titled 'Focused Build - Project Manager' and contains several widgets. On the left, there is a 'Roadmap Viewer' for 'SAP Solution Manager'. The central area displays a grid of widgets: 'Project Management' (Focused Build Projects, 13, Not Completed), 'Requirements Management' (0), 'My Requirements' (6), 'My Work Packages' (36), 'My Risks' (6), 'Issues Service Delivery' (378, Open Issues), 'My Tasks Project Management' (11, Not Completed), 'Solution Readiness Dashboard Reporting' (0), 'My Defects' (0), 'Mass Change Operations' (0), and 'My Projects Project Management' (4, Not Completed). Each widget includes an icon representing its function and a numerical value indicating the current status or count.

Widget	Icon	Value	Status
Project Management	Project icon	13	Not Completed
Requirements Management	Requirements icon	0	
My Requirements	Requirements icon	6	
My Work Packages	Work Packages icon	36	
My Risks	Risks icon	6	
Issues Service Delivery	Issues icon	378	Open Issues
My Tasks Project Management	Tasks icon	11	Not Completed
Solution Readiness Dashboard Reporting	Dashboard icon	0	
My Defects	Defects icon	0	
Mass Change Operations	Change icon	0	
My Projects Project Management	Projects icon	4	Not Completed

Path to Move using Project (Focus Build)



Focus Build Architecture



SAP Best Practices for S/4HANA

- SAP Best Practices are tailored to accelerate and simplify the adoption of SAP S/4HANA for faster time to value
- Provides preconfigured content (called scope items) for core business processes with a role specific, responsive and simple user experience
- SAP provides a free tool “SAP Best Practices explorer” which provides the scope item details with process flow diagrams, test scripts and an overall description
- Best practices can be activated with or without Demo data (includes sample customers, vendors, materials, and profit centers)

LAB 1 – Focus Build

- Focus Build Lab

Useful for new implementations of S/4HANA

Topic 3 and Lab 2

SAP Readiness Checks and Simplification Checks

- SAP Readiness Checks and Simplification Checks
 - We analyze the source system and viewing the resulting reports files
 - Some of this is a repeat from Monday Lab with some differences.

S/4HANA Tools

These are the tools for conversion and upgrade

https://help.sap.com/docs/SAP_S4HANA_ON-PREMISE



Conversion & Upgrade Assets

[Simplification Item Catalog](#)

Search and browse the Simplification List online

[Simplification List for SAP S/4HANA](#) (PDF)

Focuses on what needs to be considered in an implementation / migration project from SAP ERP 6.X to SAP S/4HANA.

[SAP Readiness Check](#)

Analyzes your SAP ERP 6.0 system and highlights important aspects of the conversion to SAP S/4HANA, such as identification of relevant simplification items, high-level custom code analysis, add-on compatibility, sizing, and more. (The tool is not relevant for the upgrade from one SAP S/4HANA release to the next.)

[Custom Code Migration Guide for SAP S/4HANA 2022](#) (PDF)

Provides instructions on how to adapt custom code in the context of a system conversion to SAP S/4HANA.

[Custom Code Management \(CCM\) During an SAP S/4HANA Conversion Project](#) (PDF)

Best practices for CCM during the conversion of a single SAP ERP system to an SAP S/4HANA system.

[Data Volume Management \(DVM\) During an SAP S/4HANA Conversion Project](#) (PDF)

Best practices for DVM During the conversion of a single SAP ERP system with a medium sized database to an SAP S/4HANA system.

[Introduction of SAP Fiori during an SAP S/4HANA Conversion](#) (PDF)

Best practices for SAP Fiori introduction during the conversion of a single SAP ERP system to an SAP S/4HANA system.

SAP Readiness Checks

SAP Readiness checks tool build a platform to analyze the source system and viewing the resulting reports files.

SAP Readiness Check for SAP S/4HANA provides a pre-conversion overview, useful for identifying current system landscape preparation steps, well in advance of SAP S/4HANA system conversion project start date.

The following checks are available in SAP Readiness Check for SAP S/4HANA and ECC upgrades:

- ✓ Simplification Items
- ✓ Recommended SAP Fiori Apps
- ✓ Integration
- ✓ Custom Code Analysis
- ✓ SAP Innovative Business Solutions
- ✓ Add-On Compatibility

Simplification Checks

Search and browse upgrade relevant simplification items for the targeted release using the Simplification Item Catalog

The Simplification Item Check consists of a report /SDF/RC_START_CHECK and a related check framework which you shall run on your SAP ERP system as preparation for a system conversion to SAP S/4HANA

If upgrading from one S/4HANA release to another, same checks should be run again. The Simplification Item Check is not required or applicable when doing a Support Package or Feature Package update within an SAP S/4HANA release.

The Simplification Item Check serves two purposes:

- Relevance check: Determine which Simplification Items are relevant for the specific system in which you are running the Simplification Item Check. This shall help you to assess the functional and technical impact of the system conversion on your system.
- Consistency check: During the conversion process your system will be migrated to the new data structures and new processes. The conversion routines rely on consistent data in the system in order for this to happen automatically. If the Simplification Item Check identifies data inconsistencies or missing mandatory preparation activities which could cause the system conversion to fail, it will make you aware of these issues so you can correct or exempt them before the actual system conversion starts.

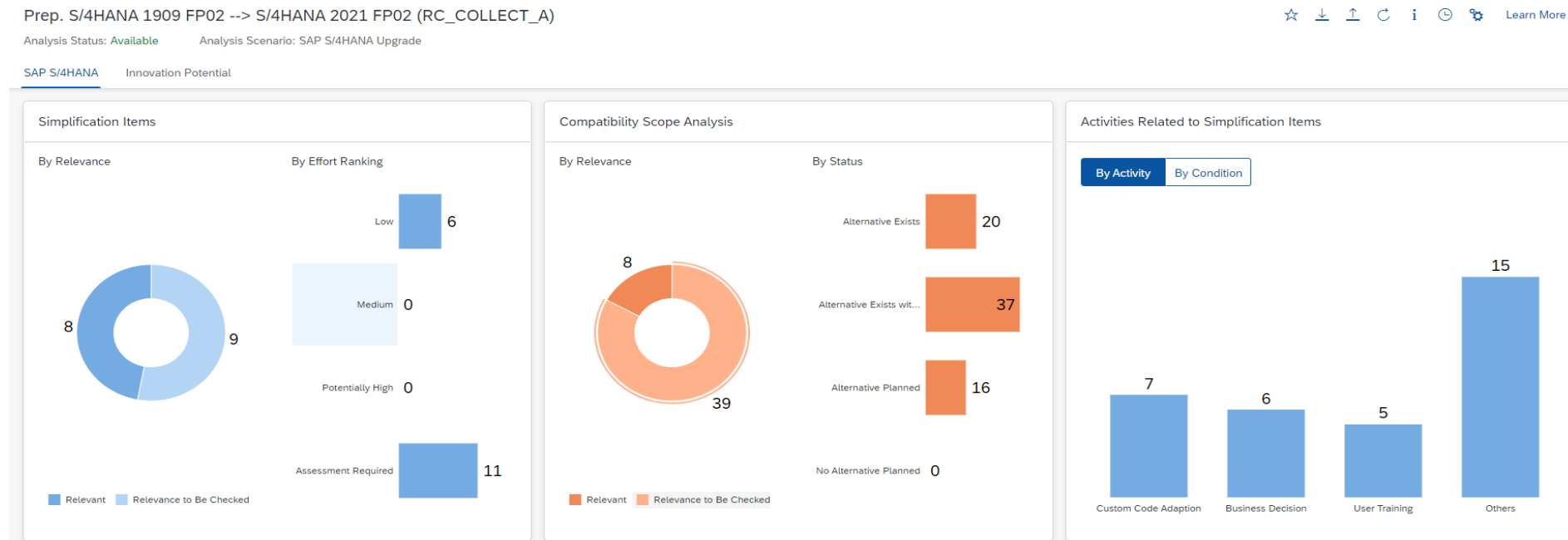
Collecting the Data - Readiness Checks Data Collector

- There are SAP Readiness Data Collector report for ECC and S/4 HANA systems which pulls the readiness analysis.

Readiness Check Report: RC_COLLECT_ANALYSIS_DATA

Simplification Item Report: /SDF/RC_START_CHECK

- Readiness test results for S/4 HANA 1909 to S/4 HANA 2021 below:




Reviewing the SAP Readiness Checks Reports

STEP 1 – Run the collection for the readiness checks on the source system (ECC), execute the program RC_COLLECT_ANALYSIS_DATA via transaction SA38.

STEP 2 – Download the collected data and upload into the Readiness Check Analysis site → link to <https://rc.cfapps.eu10.hana.ondemand.com>

STEP 3 – Perform the analysis and review the reports. Reference the SAP documentation for more details.



SAP Readiness Check

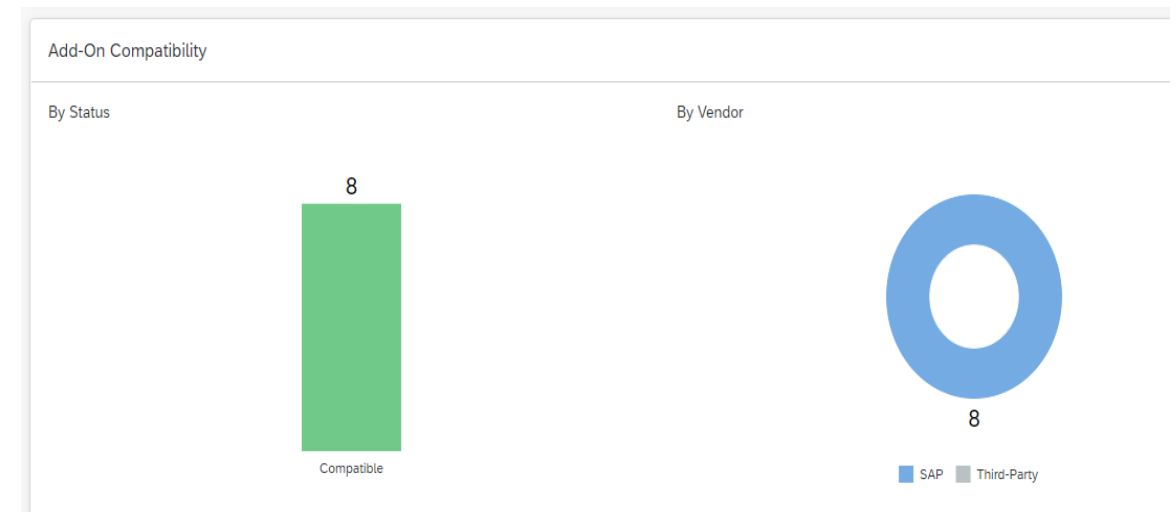
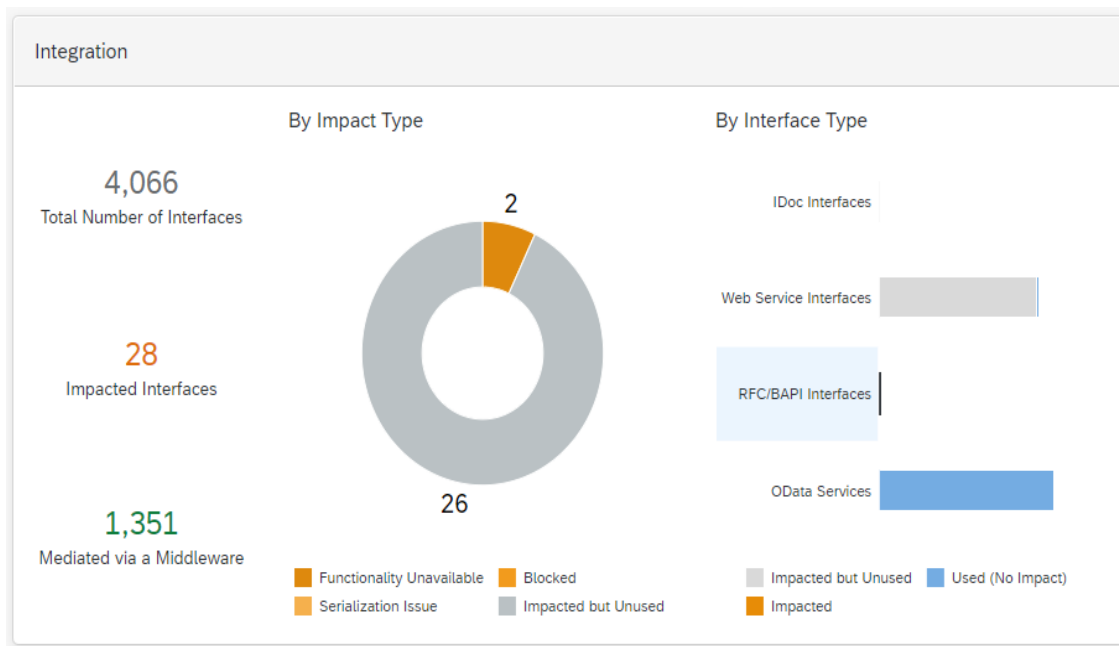
Plan Your Digital Transformation Journey

Recent Analysis

Available	SAPinsider Project	SAP S/4HANA Conversion	3/7/2023 4:30:37 PM	ES8 (950)	SAP S/4HANA 2021 (03 (11/2022))
Available	SAP S/4 HANA Readiness Check	SAP S/4HANA Upgrade	11/9/2022 10:06:00 AM	DEF (100)	SAP S/4HANA 2022 (01 (02/2023) FPS)
Available	Wichita S4H Redinesscheck	SAP S/4HANA Upgrade	8/1/2022 1:02:55 PM	S4H (100)	SAP S/4HANA 2021 (02 (05/2022) FPS)
Available	OMP	SAP S/4HANA Conversion	7/25/2022 1:59:05 PM	CRH (300)	SAP S/4HANA 2021 (02 (05/2022) FPS)

Viewing the Reports from the Readiness Checks

- Reports are grouped by area
- Drill down is possible by clicking on items and more details will display



<https://rc.cfapps.eu10.hana.ondemand.com/comsaprcweb/index.html>

Readiness Checks Roadmap Viewer

SAP offers an implementation Roadmap Viewer tool for S/4 HANA upgrade used to navigate the phases, deliverables, tasks, and accelerators related to the SAP Activate methodology.

Below Road Map Viewer link for S/4 HANA upgrade and product integration can provide the detailed overview:

<https://go.support.sap.com/roadmapviewer/#group/AAE80671-5087-430B-9AA7-8FBE881CF548/roadmapOverviewPage/MATS4HANA>

LAB 2 - SAP Readiness Checks and Simplification Checks

- **Readiness and Simplification Demo:**
 - Steps on how to run the readiness checks in ECC or S/4HANA systems
 - Downloading the results files for use in the SAP Readiness Checks Support Portal
- **Hands-On:**
 - SAP Readiness checks and Simplification Checks to analyze the source system and viewing the resulting reports files - repeat from LAB 1 with some differences.

FOCUS → Upgrade/Conversions “Brownfield” move to S/4HANA

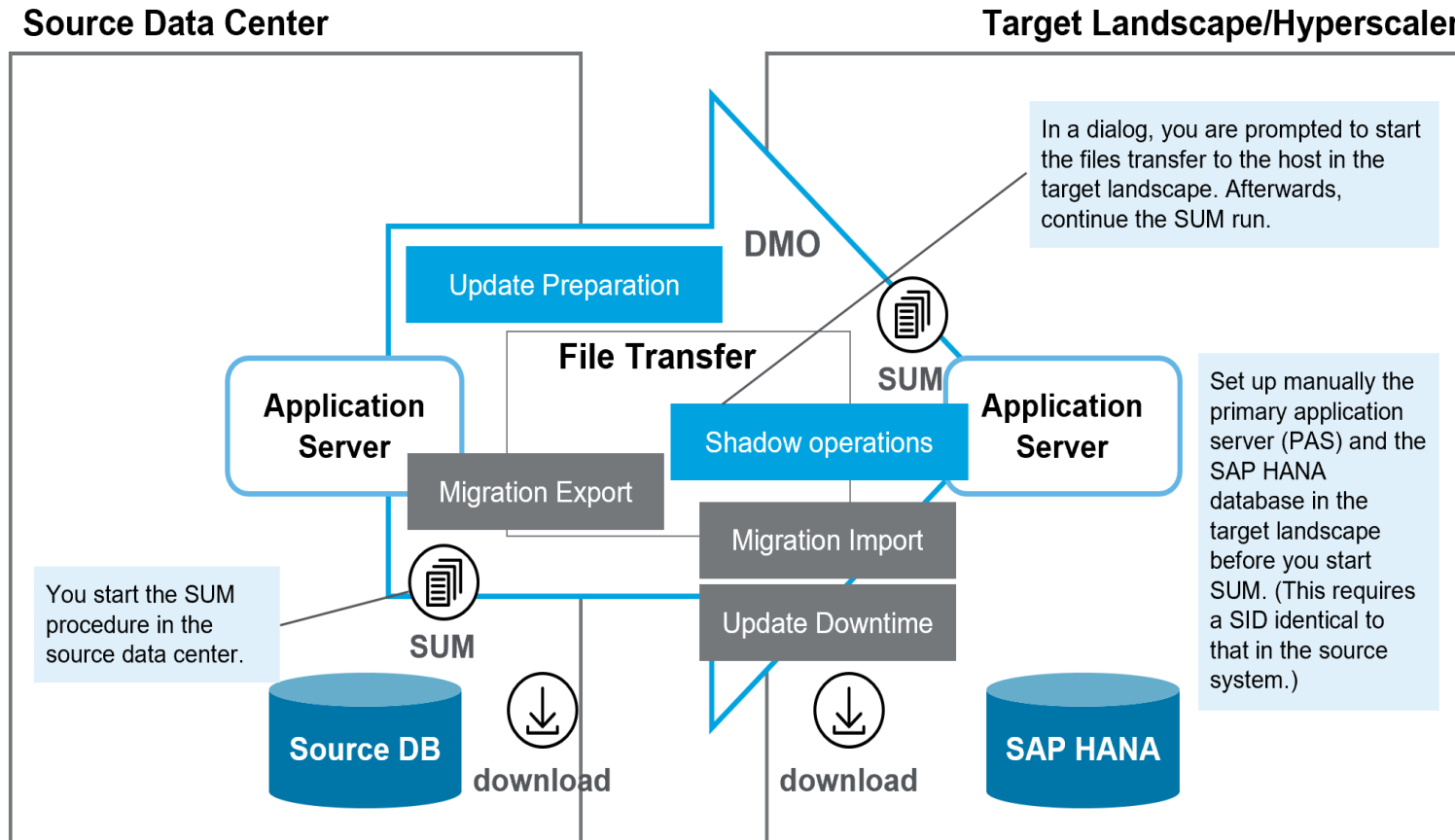
Topic 4 - Tools for Upgrade and Conversions to S/4HANA

Tools for Upgrade and Conversions to S/4HANA
SAP SUM tool and DMO Options

Steps and Tools to Prepare for Upgrade to S/4HANA

1. Review the current software releases, components, add-ins, and ECC switch framework enabled features to verify the compatibility for S/4HANA.
2. Perform a complete detailed system review for the source systems and target systems including connectivity, networking, and storage systems for space needed for the conversion process. Verify that all the hardware and baseline software requirements as published in the relevant SAP documents and SAP notes are met.
3. Simplification Item Catalog - Search and browse upgrade relevant simplification items for targeted release.
4. SAP Readiness Checks - Analyze the source system and identify simplification items, high-level custom code analysis, add-on compatibility, and other items:
 - Implement CVI to synchronize the Customer Master and Vendor Master objects with SAP Business Partner objects
 - Relevance check produces a customized list of relevant simplification items for the ECC system determined on rules maintained in the simplification item catalog
 - Consistency check to analyze the consistency of the system in preparation for the conversion or upgrade using Software Update Manager
 - Utilize the ABAP Test Cockpit (ATC)
5. Custom Code Migration Guide for adapting custom code. as part of the readiness check for the ABAP program.
6. Maintenance Planner used for software components preparation, download, and stack XML file creation
7. Software Update Manager 2.0 - SAP SUM/DMO tool to perform the software upgrade and migration

S/4HANA Upgrade for Brownfield - SUM/DMO with Move Option



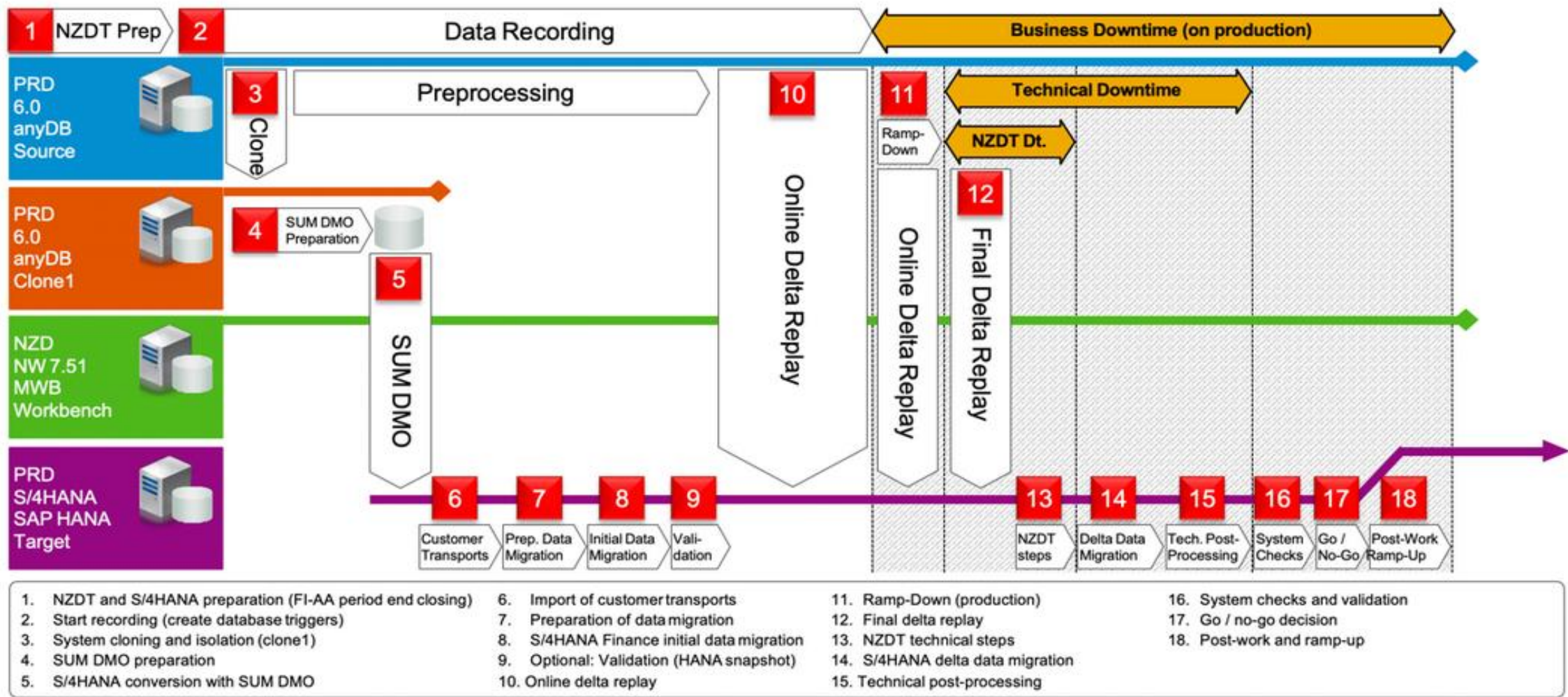
Source: SAP

The Software Update Manager offers the Database Migration Option (DMO), which is the combination of the SAP software update with the database migration. Supports changing O/S and DB types. Target is HANA 2.0.

Steps to be followed :

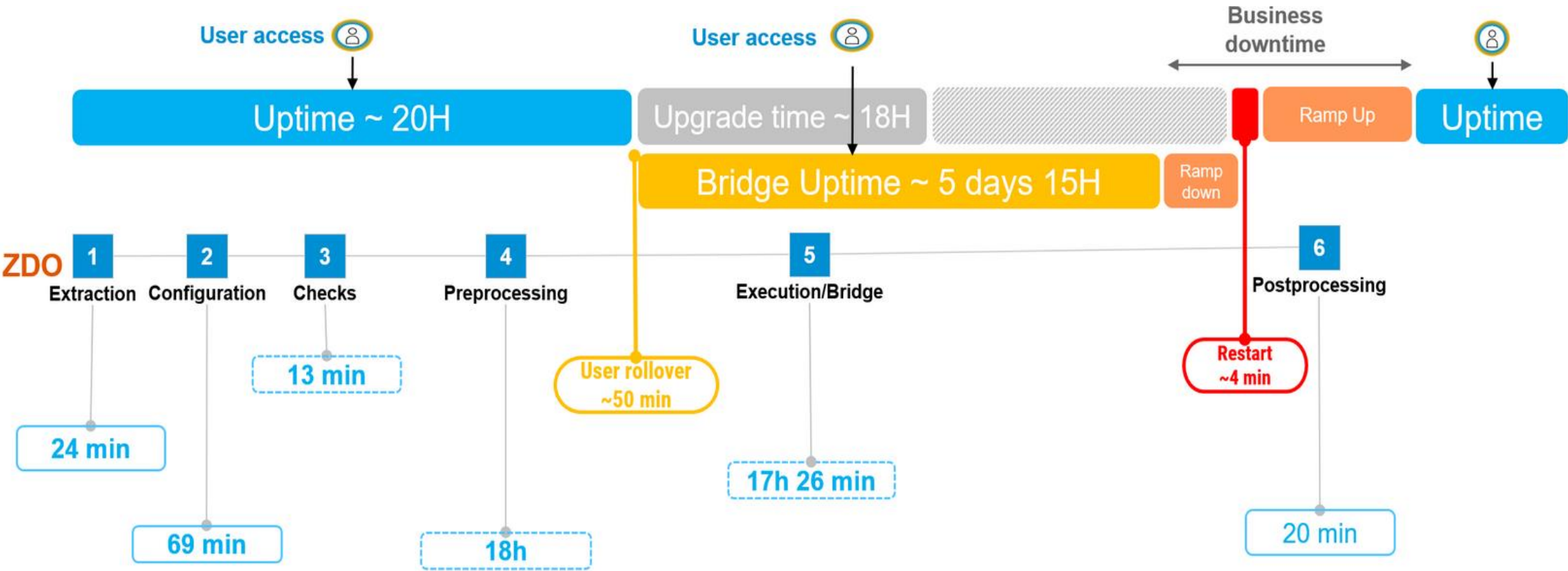
1. Start the SUM tool on PAS of the source system and executes the first part, including the export of the database content into files.
2. The SUM directory along with export files are transferred to the target system.
3. The remaining part of the procedure happens on the target system that changes in the subsequent procedure from downtime to uptime for productive use.

NZDT - Near Zero Downtime for S/4HANA Conversion



ZDO Method - Zero Downtime Method and Timings

Actual downtime is ~4 minutes. Ramp down and up is about 25 minutes



Topic 5 and Lab 3 - Data Migration Using Fiori App

- Data Migration to S/4HANA
- Includes Fiori App Lab Walk Through for Data Migration

Most Common Data Migration Tools

- SAP Data Services (SDS or BODS) and SAP Information Steward (IS)
- SAP Migration Cockpit (SMC) - transaction LTMC in S/4HANA, replaces LSMW. LTMC is embedded within S/4 HANA both cloud and on-premises versions. It is positioned for use in the transformation and loading of data into S/4 HANA.
- SAP Agile Data Preparation (ADP)
- SAP HANA EIM Smart Data Integration (SDI) / Cloud Platform SDI / Smart Data Quality (SDQ)
- Legacy Systems Migration Workbench (LSMW) – (no longer supported by SAP on S/4HANA)
- Third Party Tools from Vendors - software, tools and services for selective data transition

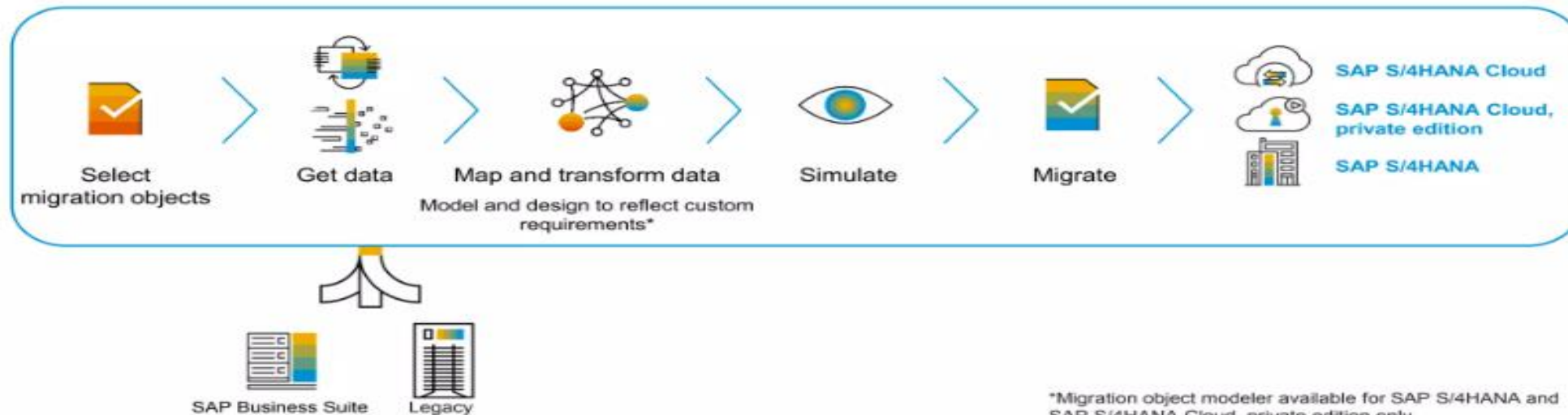
Data Loading Tools	Common Selective Data Transformation Tools	More Data Transformation Tools
SDS/BODS/IS	SAP (DMLT)	CBS
SMC and LTMC	Syniti	Natuvion
ADP	SNP	Datavard

Migrate your Data Application



- SAP introduced “migrate your data” fiori app from S/4HANA 2020 onwards to migrate business data from SAP system and non-SAP systems to S/4HANA target and monitor status .
- Provide a comprehensive migration solution with no programming required by the customer.
- Include mapped data structures between source and target system.
- Reduce test effort.
- Makes the migration solution auditable.

Data Migration Process using the Migrate Your Data App



Lab 3 – Data Migration Using Fiori App

Walk Through - Instructor Led

Data Migration Lab Walk Through

- Steps to perform Data Migration using SAP Tools
 - Migration Cockpit older transaction
 - Migration Fiori Tile
 - DMC Tool and Cockpit (Fiori app)

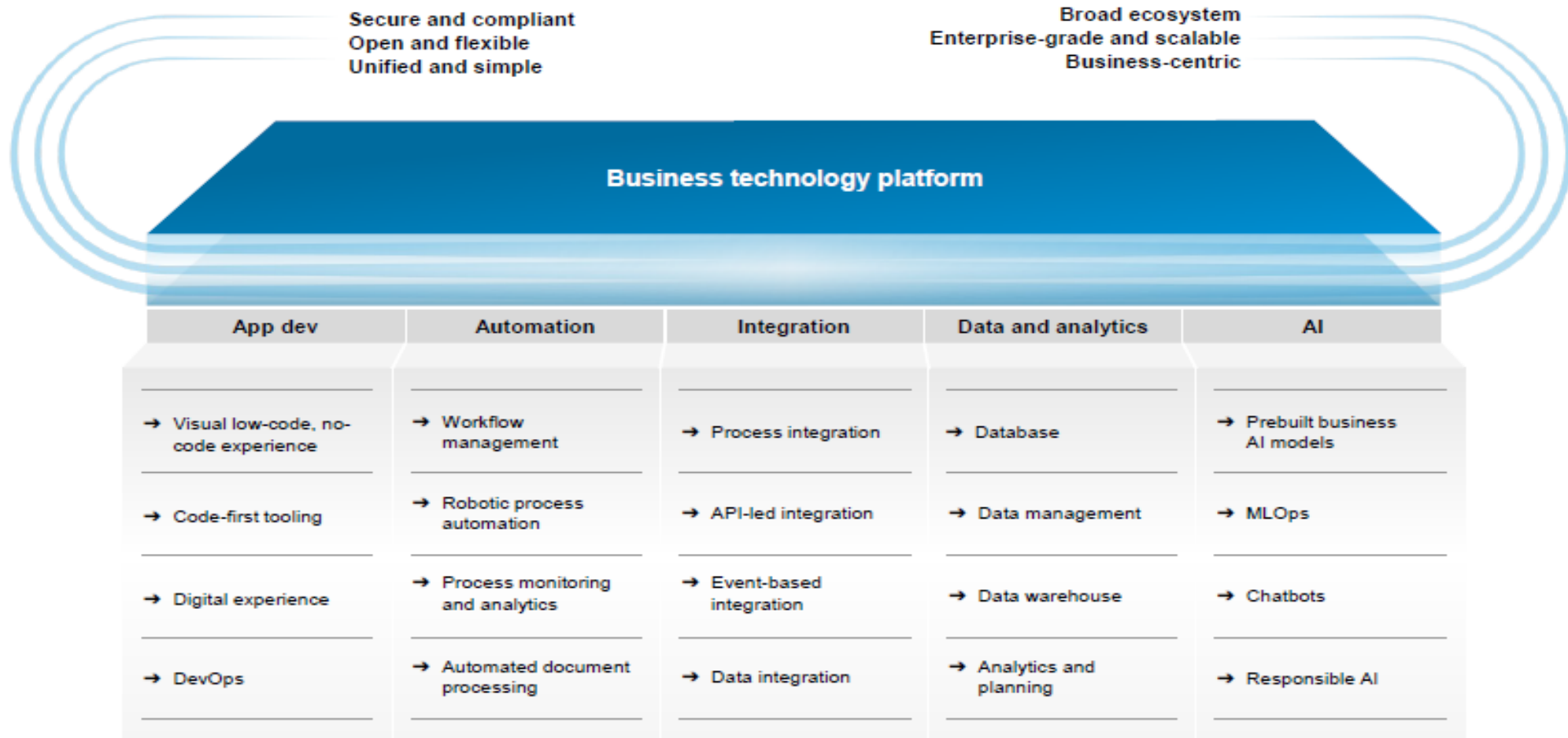


Topic 6 - Using BTP Tools for Moving to S/4HANA

Lab 4 – BTP Tools

- SAP Business Technology Platform services for S/4HANA
- Tools and Capabilities of BTP

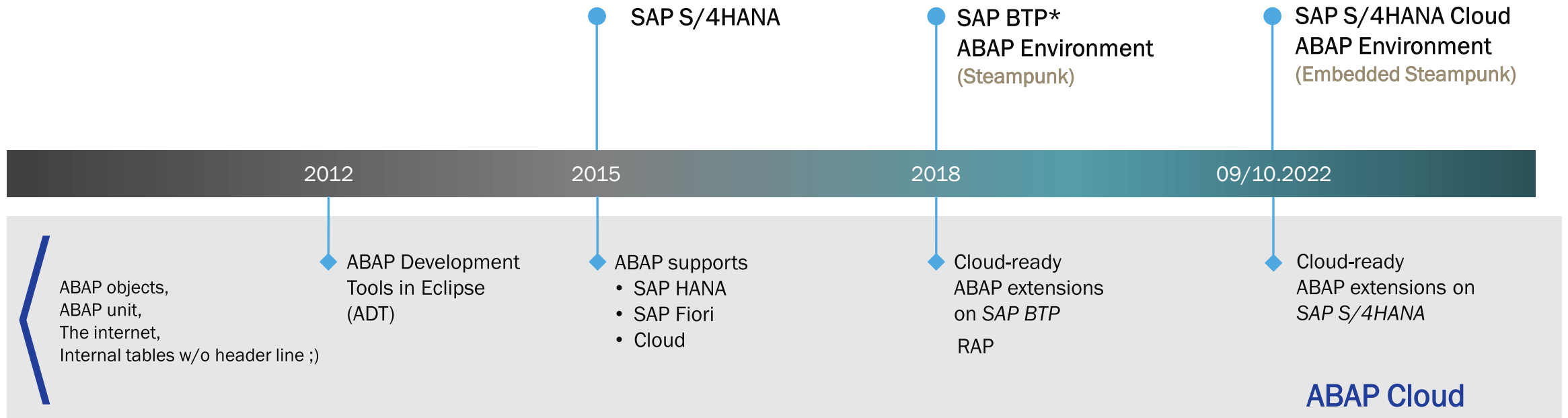
SAP BTP – Cloud capabilities



Source: SAP

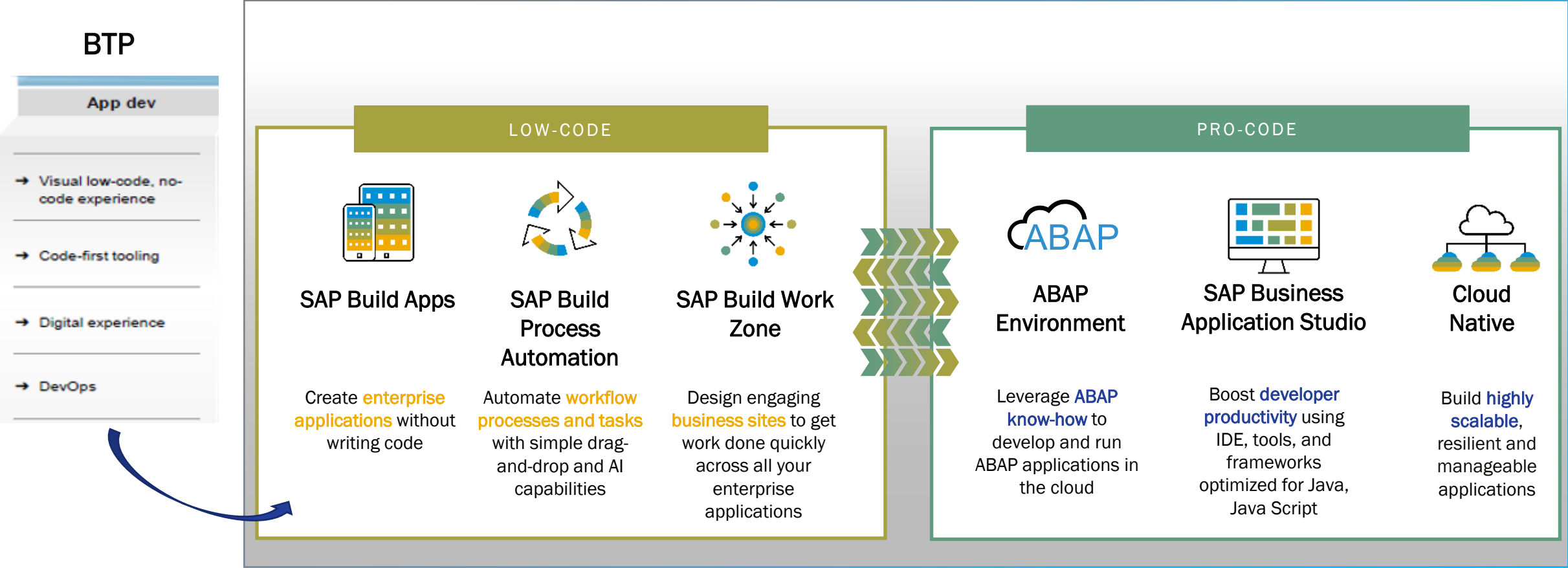
Evolution towards ABAP Cloud

- The evolution towards ABAP Cloud is the ABAP development model to build cloud-ready business apps, services and extensions
- Comes with SAP BTP and SAP S/4HANA
- Works with public or private cloud, and even on-premise



Source: SAP

Developer Tools - Low-code and Pro-code



Source: SAP

Custom Code Conversion Overview

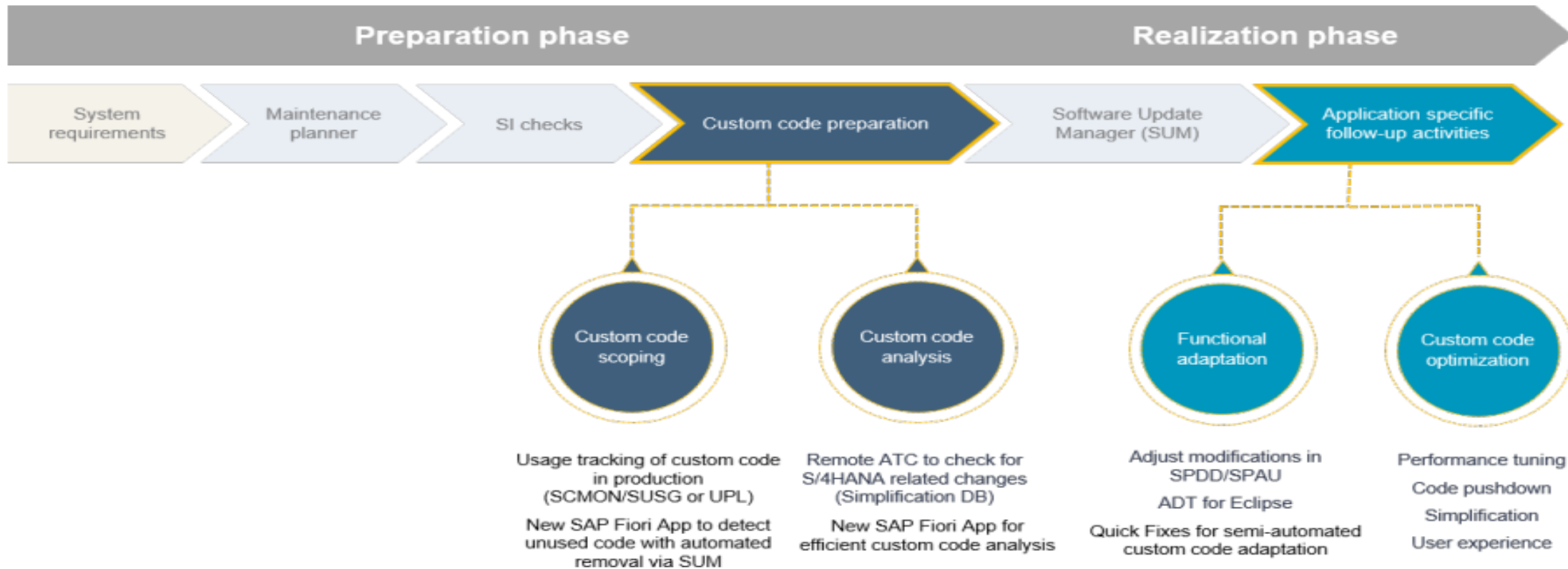
- Custom Code must be adapted before upgrading. Use the Custom Code Migration app. Refer to the custom code conversion guide.
- Run the SAP S/4HANA checks to analyze which custom code needs to be adapted to get information about the findings for the development objects that need to be adapted.
- Run the SAP S/4HANA checks based on the ABAP Test Cockpit (ATC).



Source: SAP

Custom Code Conversion Phases

Custom Code Preparation Overview






Overview of the conversion process that is divided into the preparation phase and the realization phase

Source: SAP

Custom Code Conversion Analysis Options

Custom Code Analysis Options:

1. With Remote ATC with SAPGUI
2. Fiori Custom Code Migration App
3. **SAP BTP ABAP Environment - BTP can be used for Code Transformation if using Brownfield**

	 Remote ATC with SAP GUI	 SAP Fiori Custom Code Migration App	 SAP Fiori Custom Code Migration App in SAP BTP ABAP Environment
Required system	Central ATC check system (SAP_BASIS 7.52)	Central ATC check system (SAP S/4HANA >=1809)	SAP BTP ABAP Environment
System location	in customer landscape	in customer landscape	cloud
Remote connectivity	via RFC	via RFC	via RFC and SAP Cloud Connector
Technical configuration	manual	manual	with CIAS
Analyze Cloud findings	✓	✓ (only >= SAP S/4HANA 1909)	✓
Analyze SAP S/4HANA findings	✓	✓	✓
Simplification information in ATC result	✓	✓	✓
Filter results by scope and Quick Fix availability	✗	✓	✓
Define custom code migration scope based on usage data	✗	✓	✓
Remove unused code during system conversion via SUM	✗	✓	✓

Source: SAP

Clean ERP Setting the Stage

Opportunities:

- Decoupling of code from core
- Reduce the number of technical development objects
- Limit enhancements by utilizing extensions
- Convert integrations to APIs / services
- Leverage the latest innovative solutions available on Business Technology Platform

What it is ?

- Reducing technical debt on core
- Building custom developments outside of core (on Platform)
- Leverage side-by-side extensibilities and whitelisted APIs to make code upgrade independent

What it is Not?

- Core can be with zero custom object
- Data must reside on cloud
- Eliminates need for governance
- Eliminates development effort

3-Tier Extensibility Model for SAP S/4HANA

Both Private Cloud and On-Premise

TIER 1 – Cloud extensibility model

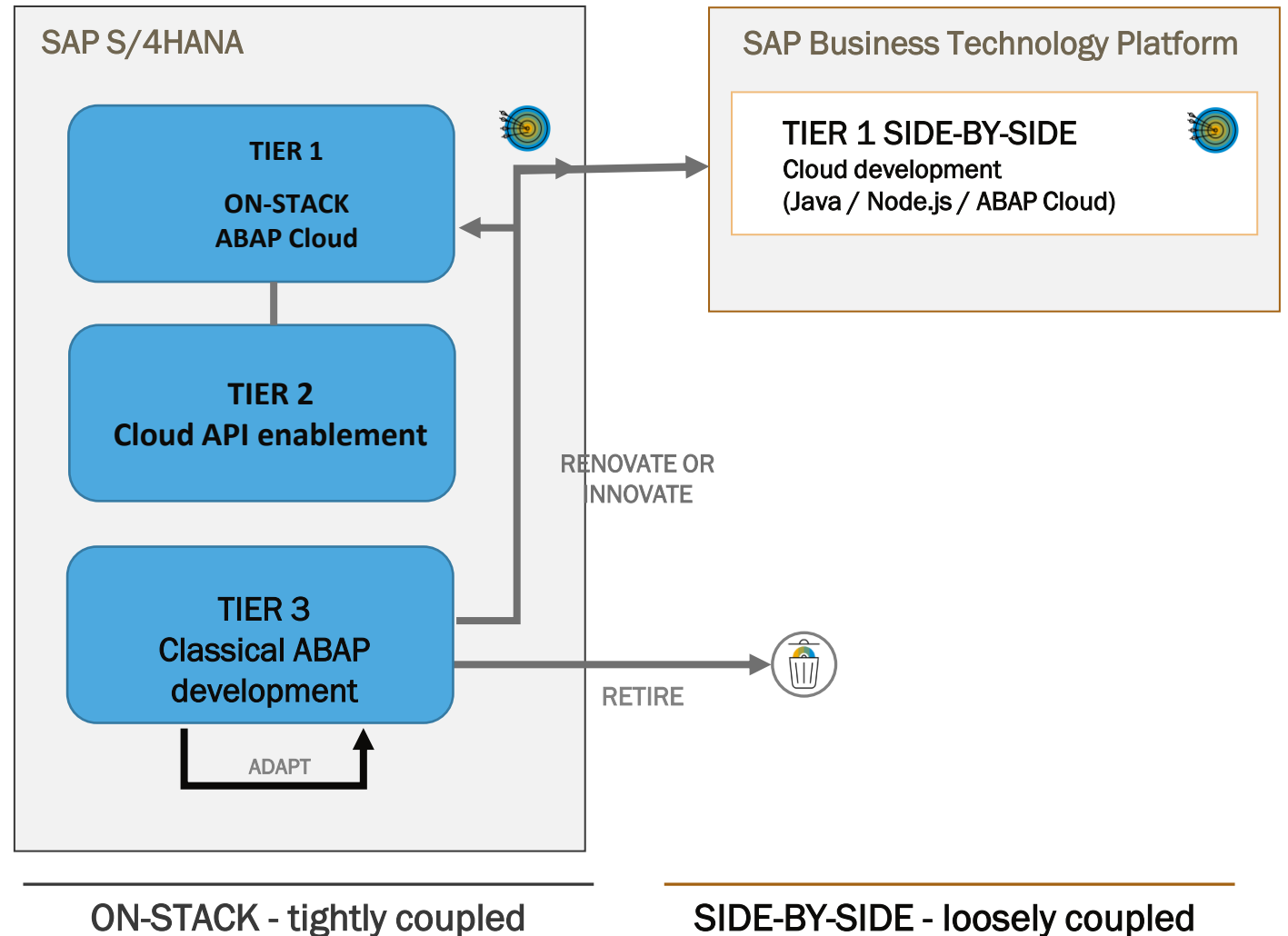
- Cloud-ready and upgrade-stable development of new applications and extensions. ABAP Cloud is mandatory – no classic ABAP in tier 1.
- Same development model as used in SAP S/4HANA Cloud, public edition
- Default for new extensions and custom apps

TIER 2 – Cloud API enablement

- Extends and enables tier 1 for private cloud and on-premise
- Mitigates missing public SAP APIs or extension points:
- Develop custom wrapper objects for not released SAP objects to be used in tier 1
- Retire wrapper once a released SAP API is available

TIER 3 – Classic ABAP extensions

- Legacy/existing custom ABAP code or new on-stack extensions code that cannot follow the rules of tier 1 and 2
- Avoid and reduce the content in tier 3



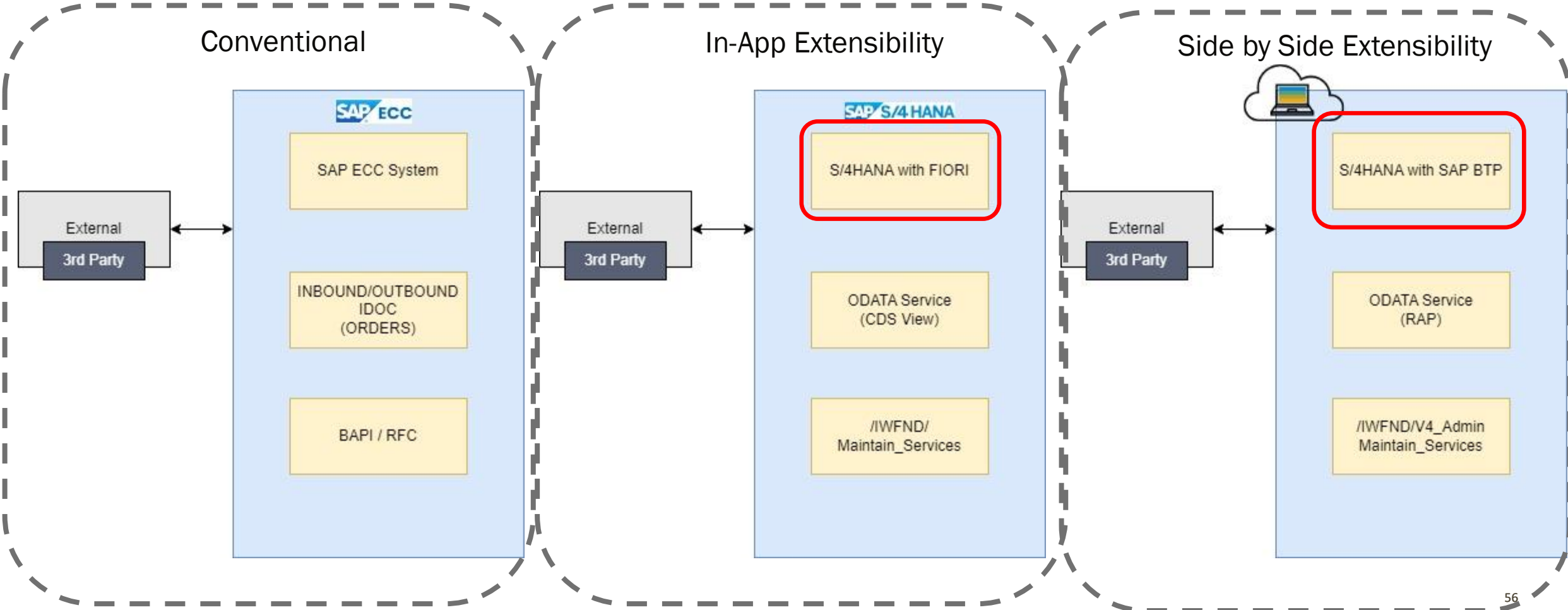
Programming Options

	Classic	In App Extensibility	Side by Side Extensibility
Programing Model	Fiori, ABAP UI (Web Dynpro & FPM), HANA	Fiori flexibility, Custom fields, Business logic, Reusable elements and Custom CDS views, RESTful ABAP Programming Model (RAP)	UI5/ Fiori, Java, JavaScript (node.js), HANA, Restricted ABAP, Cloud Application Programming Model (CAP), Restful ABAP Programming Model (RAP)
Tools	Web IDE/Eclipse, ABAP Workbench, Eclipse(HANA Tools)	Web IDE/Business Application Studio (BAS), Eclipse, Fiori Key User Tools (apps)	Eclipse/Web IDE/Business Application Studio (BAS), S/4HANA Cloud SDK, HANA Studio, Restricted ABAP Environment
Pros	<ul style="list-style-type: none"> ▪ Easy to develop ▪ No cloud subscription required ▪ No additional programming language/platform required 	<ul style="list-style-type: none"> ▪ Cloud subscription is not necessary ▪ Upgrade friendly ▪ SAP Whitelisted APIs 	<ul style="list-style-type: none"> ▪ Technical debt is reduced ▪ Web API's(Including SAP SaaS products)
Cons	<ul style="list-style-type: none"> ▪ Upgrade complexity ▪ Technical debt overhead ▪ No technical restrictions for modifying standard APIs 	<ul style="list-style-type: none"> ▪ Limited options to enhance the objects 	<ul style="list-style-type: none"> ▪ Additional license cost for development tools and cloud services ▪ Need expertise on additional programming languages like node.js and java

Clean Core Demo - In-App Extensibility

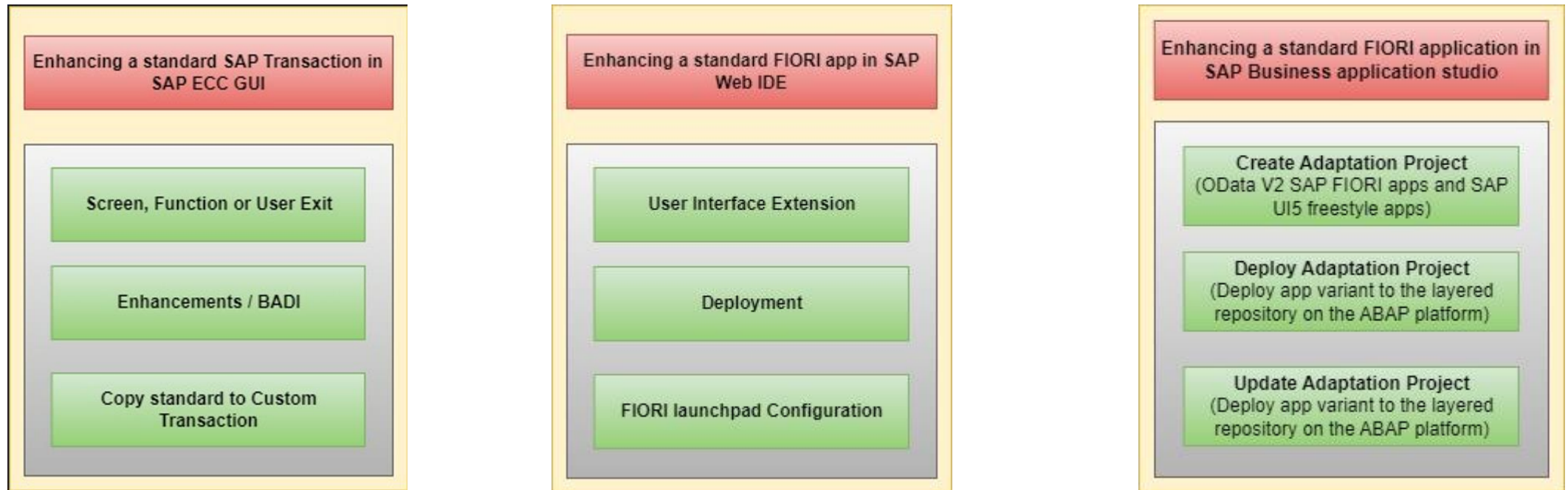
Use case - Extract purchase order related data from third-party system to SAP application

Source: SAP



Clean Core Demo – Side by Side Extensibility

Use case – Extending an SAP FIORI Application



Source: SAP

Demonstration and Hands on Lab

Demonstration of BTP (Business Technology Platform) and review of services related to SAP S/4HANA upgrade and migration

- Leverage Integration Suite
- Review BTP Capabilities



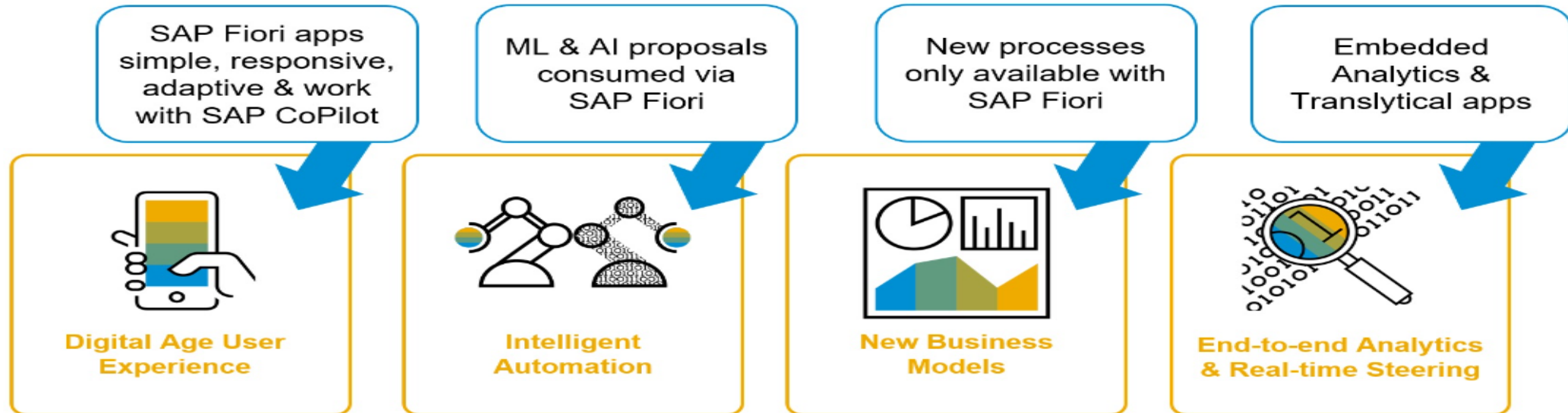
Topic 7 – Fiori Launchpad and Business Content

Lab 5 – Fiori Activation Walk Through

- Fiori Launchpad and managing the business content and functions using the user interface of Fiori
- Discussion about the Fiori LaunchPad and Activation of Content
- Demonstration

Fiori User Interface for Business Applications

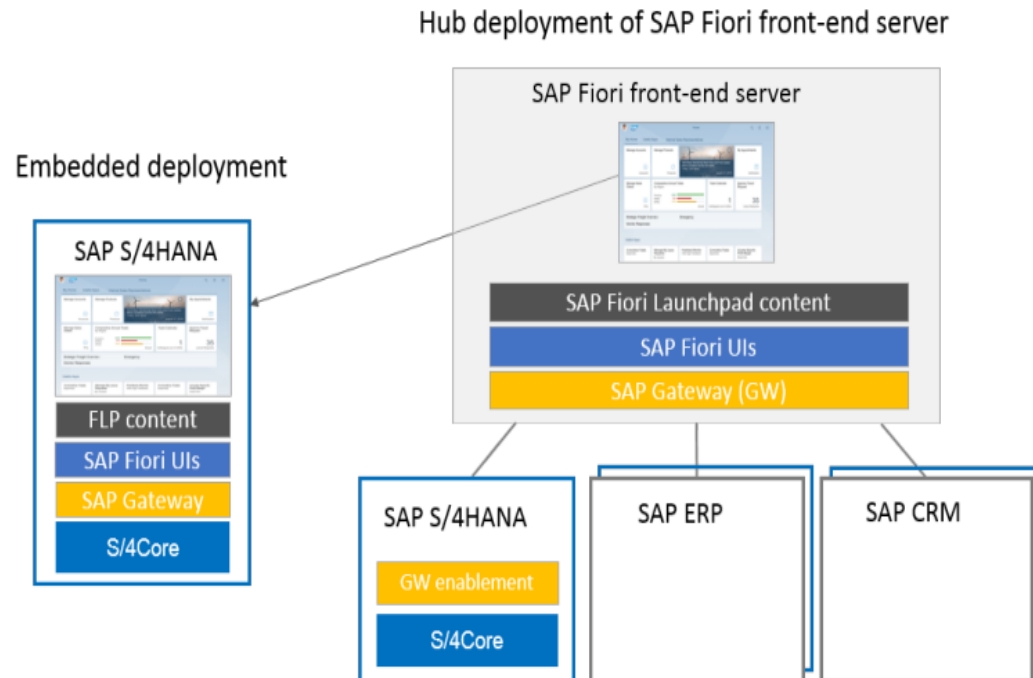
- Library of Fiori Applications → <https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/>
- SAP Fiori UX is new UI experience target architecture for SAP S/4HANA
- SAP Fiori and SAP GUI are both supported (for exceptions see Simplification List)
- Relevance and readiness analysis recommend – Find Fiori Apps based on T-codes
- SAP Fiori Frontend Server (FES) provides Fiori & central UI components and Maintenance planner considers FES software



Source: SAP

SAP Fiori Technical Setup and Gateway

- FES (Front End Server) deployment can be embedded or separate, depends on other backends (type & release). Choice of Central (Hub) or Embedded Gateway
- S/4HANA recommendation is to use the Embedded Gateway when possible (simpler, faster, all in one system)
- Fiori Launchpad and SAP GUI for Windows is supported for access to SAP S/4HANA Systems



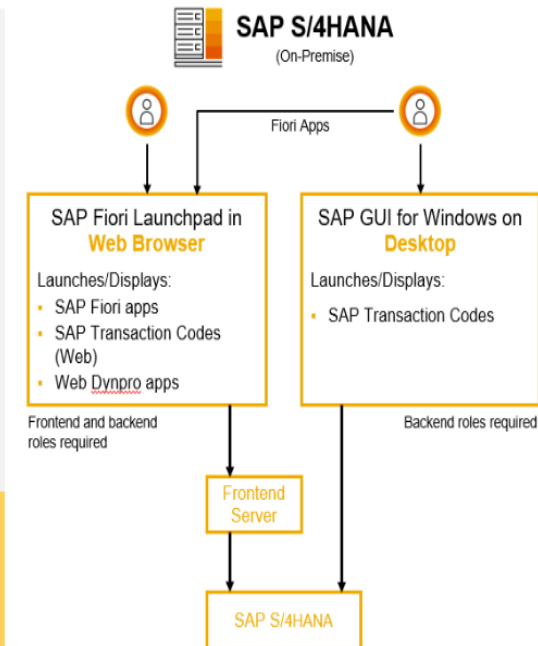
SAP Fiori Launchpad
The next generation UX for SAP

Features

- Single point of entry for end users
- Look and feel similar across devices
- Only option for SAPUI5 apps
- Role-based, responsive and personalized
- Access to harmonized apps: SAPUI5, WDA, and SAP GUI Transactions
- No software installation (runs in a web browser)

Recommendations

- Best suited for **end users**
- Recommended client for SAP S/4HANA



SAP GUI for Windows
Universal client for accessing traditional SAP functionality.

Features

- Graphical UI for transactions based on classic Dynpro technology (not compatible with SAPUI5 apps)
- High performance due to SAP GUI install on desktops
- Fully compatible with all supported NetWeaver releases

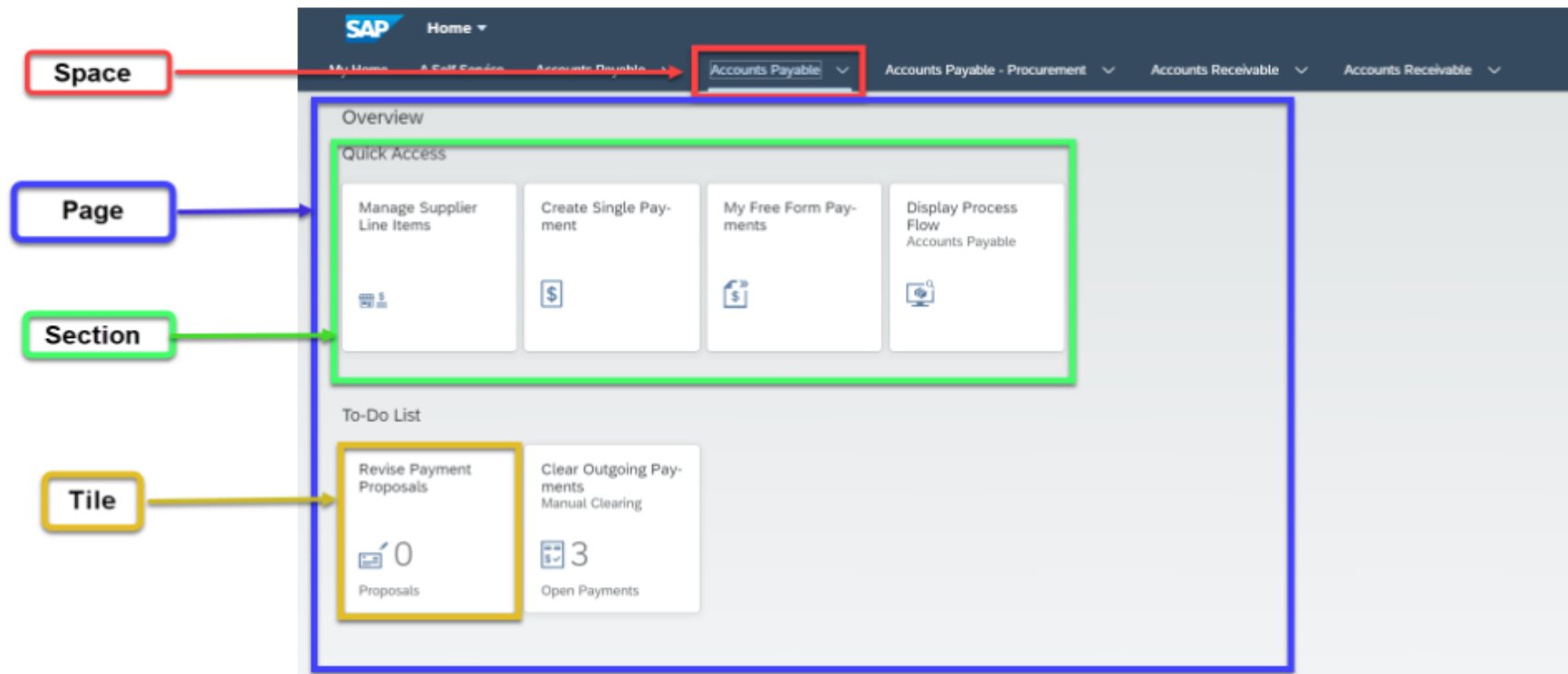
Recommendations

- Best suited for **IT, Configuration and Power Users**
- General deployment to all desktops

Source: SAP

SAP Fiori Launchpad

- Design and Library of Fiori Applications → <https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/>
- Run Fiori using → /n/ui2/flp or directly to the Web Page



SAP Fiori Rapid Content Activation

Benefits and Key Points for Fiori Rapid Content Activation:

- Individual implementation of the app will break the user experience and result in higher implementation costs.
- It is a process to mass activate SAP Fiori Apps released by SAP and serves as a quick start to experience SAP Fiori for SAP S/4HANA.
- SAP's "Rapid SAP Fiori activation" enables us to install required apps in a quick and cost-effective manner due to activation of entire SAP Fiori Launchpad content related to a business role together.

Procedure:

- Review the Prerequisites for Rapid Activation
- Find an SAP business role in the SAP Fiori Apps reference library
- Verify pre/post steps for a specific SAP business role
- Activate or reactivate an SAP business role using SAP Fiori rapid content activation
- Create a test user to verify your SAP business role

SAP Fiori for SAP S/4HANA – New Rapid Content Activation

- SAP Fiori is how business users access S/4HANA innovations.
- To enable innovations in Fiori, technical team must activate 100's of SAP Fiori apps and launchpad content. Use the new rapid content activation task lists and dramatically cut the activation effort.
- Performed by activating delivered SAP Business Roles as a consolidated single unit complete with ready-to-test business user ids.
- There are 2 task lists included in Rapid Activation of Fiori in S/4HANA:
 1. Task list for activating the Fiori Foundation named SAP_FIORI_FOUNDATION_S4
 2. Task list for activating Fiori Content by selected business roles, named SAP_FIORI_CONTENT_ACTIVATION



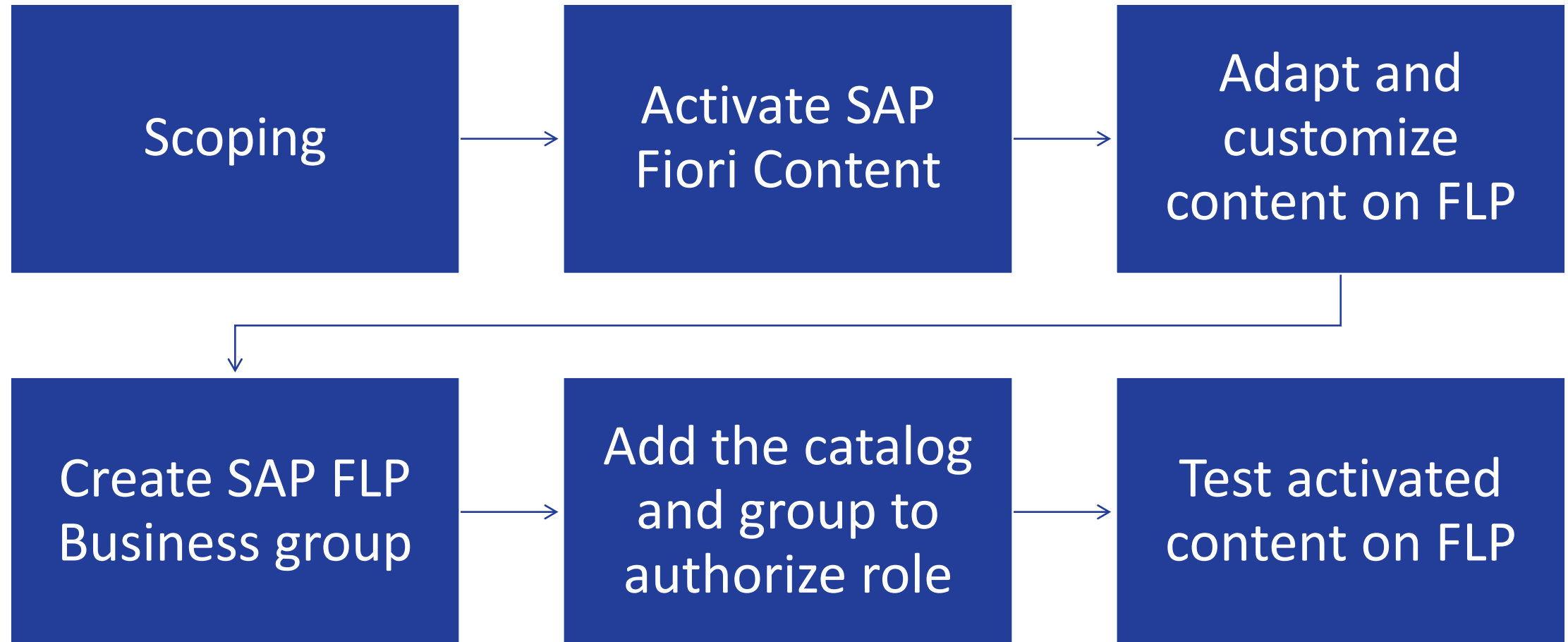
SAP Fiori Rapid Content Activation Prerequisites

- The SAP Fiori front end server for your SAP S/4HANA system is deployed in embedded mode
 - Rapid activation is typically done in a sandbox system first followed by development system
- The SAP Fiori foundation is configured using the SAP Fiori foundation task list
 - Refer to SAP note 2902673 - Rapid Activation for SAP Fiori in SAP S/4HANA

Steps to be performed:

- Review the SAP Notes in the SAP Support Portal for Fiori Rapid Activation
- Access the SAP transaction STC01 in your system and run Rapid Activation content task list SAP_FIORI_CONTENT_ACTIVATION
- Determine the technical name of the SAP business role you want to activate and activate it
- Determine the authorization role that gives your test user to access to the SAP Fiori launchpad and assign to the user in PFCG and SU01 transactions
- Go to the URL of your SAP Fiori Launchpad to test your newly activated SAP business role

SAP Fiori Activation Process Flow



Demonstration and Lab Walk Through Instructor Led

Demonstration of Fiori Applications

- Rapid Deployment
- Embedded Services for Fiori
- Managing Content



SAP Fiori Upgrade Impact Analysis and Lab 6 (Optional)

Fiori Apps Checker Optional Lab 6

Categories

All apps >

All apps for SAP S/4HANA >

All apps for SAP S/4HANA Cloud >

SAP Fiori apps for SAP S/4HANA >

SAP Fiori apps for SAP Business Suite >

SAP Fiori lighthouse apps >

SAP Fiori apps on SAP BTP >

Sign in and get recommendations based on your system usage. [Learn more](#)

Get SAP Fiori App Recommendations

Understand the impact of upgrading your SAP S/4HANA system. [Learn more](#)

Run SAP Fiori Upgrade Impact Analysis

Welcome to the SAP Fiori Apps Reference Library!

New update available for SAP Fiori Apps Reference Library - [Improved search.](#)

Explore, plan and implement SAP Fiori, the latest user experience from SAP including all relevant content for the SAP Fiori launchpad.

Find out how to get the most out of SAP Fiori Apps Reference Library in the [help portal](#).

Find out how you can take advantage of SAP Fiori with our [SAP Fiori lighthouse scenarios](#) designed to deliver immediate business benefit to SAP S/4HANA customers.

You can learn more about SAP Fiori at our website or see SAP Fiori in action with a free trial.

Where to Find More Information

S4HANA Documentation:

https://help.sap.com/docs/SAP_S4HANA_ON-PREMISE

https://help.sap.com/docs/SAP_S4HANA_CLOUD

Upgrading SAP S/4HANA: Why, How, and Best Practices:

<https://assets.cdn.sap.com/sapcom/docs/2020/06/94ca0995-9d7d-0010-87a3-c30de2ffd8ff.pdf>

Readiness Checks Blog

[SAP Readiness Check for SAP S/4HANA upgrades → SAP Blogs](#)

BTP Main Documentation

[SAP Business Technology Platform \(SAP BTP\) → SAP Help Portal](#)

Fiori Main Documentation → [SAP Fiori → SAP Fiori Design Guidelines](#) and [SAP Fiori Launchpad → SAP Help Portal](#)

Reference Documents (1 of 3)

Transition scenarios:

<https://blogs.sap.com/2017/07/06/how-to-find-my-path-to-sap-s4hana-understand-the-available-transition-options/>

<https://blogs.sap.com/2016/11/02/sap-s4hana-system-conversion-at-a-glance/>

Release and maintenance strategy for SAP S/4HANA

https://help.sap.com/doc/fb3ee8b026b9468890aedd443afb9aae/1511_000/en-US/ReleaseMainStratS4.pdf

Simplification list

https://help.sap.com/viewer/p/SAP_S4HANA_ON-PREMISE

Simplification Item catalog

<https://launchpad.support.sap.com/#/sic/>

Simplification Item checks

<https://blogs.sap.com/2018/03/26/sap-s4hana-simplification-item-check-how-to-do-it-right>

Readiness check

<https://www.sap.com/readinesscheck>

<https://rc.cfapps.eu10.hana.ondemand.com>

Reference Documents (2 of 3)

Readiness check

<https://www.sap.com/readinesscheck>

<https://rc.cfapps.eu10.hana.ondemand.com>

Maintenance planner

<http://apps.support.sap.com/sap/support/mp>

Custom code adaptation

<https://blogs.sap.com/2017/02/15/sap-s4hana-system-conversion-custom-code-adaptation-process/>

SUM guide, DMO guide, SUM conversion guide, related SAP Notes, software download, Blogs

<http://support.sap.com/sltoolset>

Conversion guide, Custom code migration guide, SI Catalog, SI List, Release Information Notes

https://help.sap.com/viewer/p/SAP_S4HANA_ON-PREMISE

Reference Documents (3 of 3)

SAP Fiori Deployment Options and System Landscape Recommendations.

<https://www.sap.com/documents/2018/02/f0148939-f27c-0010-82c7-eda71af511fa.html>

SAP Fiori Reference Library

<https://fioriappslibrary.hana.ondemand.com/sap/fix/externalViewer/>

How to extend a Fiori App in S4HANA.

<https://me.sap.com/notes/0002480127>

SAP note 2902673 - Rapid Activation for SAP Fiori in SAP S/4HANA

Wrap Up

- Learned about the deployment models including Greenfield, Brownfield, and Selective data migration
- Step through the setup and usage of the Fiori Launchpad and Content for S/4HANA focused on rapid deployment and techniques for new capabilities with 2022 versions
- Reviewed with hands on the tools for S/4HANA, Simplification, Readiness Checks, and Data Migrations
- Understand how to leverage the “BTP” Business Technology Platform especially for Clean Core and Extensibility
- Upgrading the systems using tools and Zero downtime capabilities

Key Points to Take Home

- Understand the three deployment models for S/4HANA: Greenfield, Brownfield, Selective Migration
- Understanding what is new with the Fiori Launchpad and rapid deployment capabilities
- Expand your knowledge about the data migration and conversion tools for upgrading to S/4HANA
- Understand the capabilities of the SAP Readiness Checks to analyze the source system and how to view the resulting reports
- Solution Manager Focus Build tool integrated project management and best practices
- How to utilize the SAP Business Technology Platform and the services it provides, especially around extensibility
- Achieving zero downtime for upgrades to S/4HANA

Thank you! Any Questions?

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Please remember to complete
your session evaluation.

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