



SAP Business Unleashed Innovation Day

When you connect everything,
you can achieve anything.



Agenda



The five dimensions of a Clean Core – focus of presentation is on extensibility

Classic extensibility in ERP 6

S/4HANA Extensibility – key user extensibility and developer extensibility

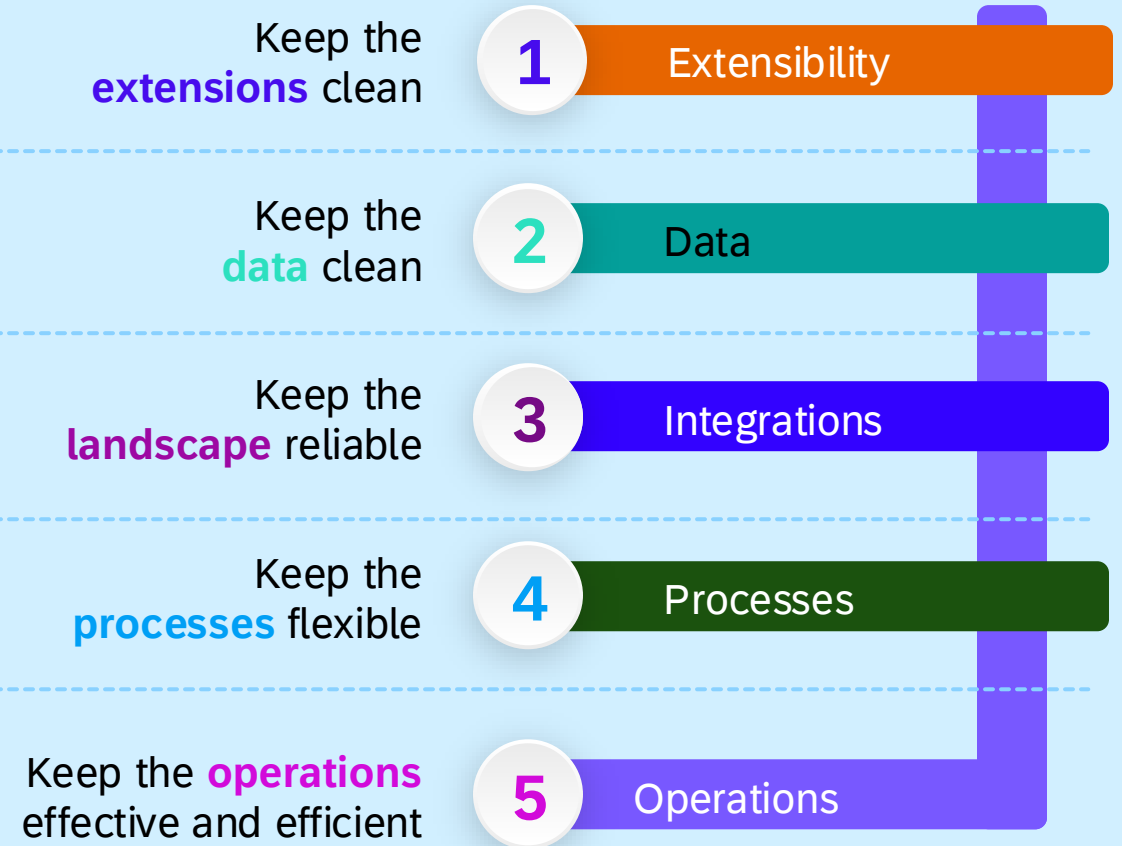
Getting started – **FREE** clean core assessment service

The clean core dimensions



A **clean core** is a system that is as close to standard as possible, while running cloud-compliant extensions and integrations.

It allows you to **adapt your system** to changing business requirements and to **adopt new capabilities**.



Today's presentation will focus on extensibility



Main aspects:

- Extensions should be **avoided** when possible.
- Create **cloud-compliant extensions**
- Leverage the full capabilities of extensibility **on the stack** as well as side-by-side **with SAP BTP**.
- Create **technical debts** only as informed decision.

Keep the
extensions clean

1

Extensibility

Keep the
data clean

2

Data

Keep the
landscape reliable

3

Integrations

Keep the
processes flexible

4

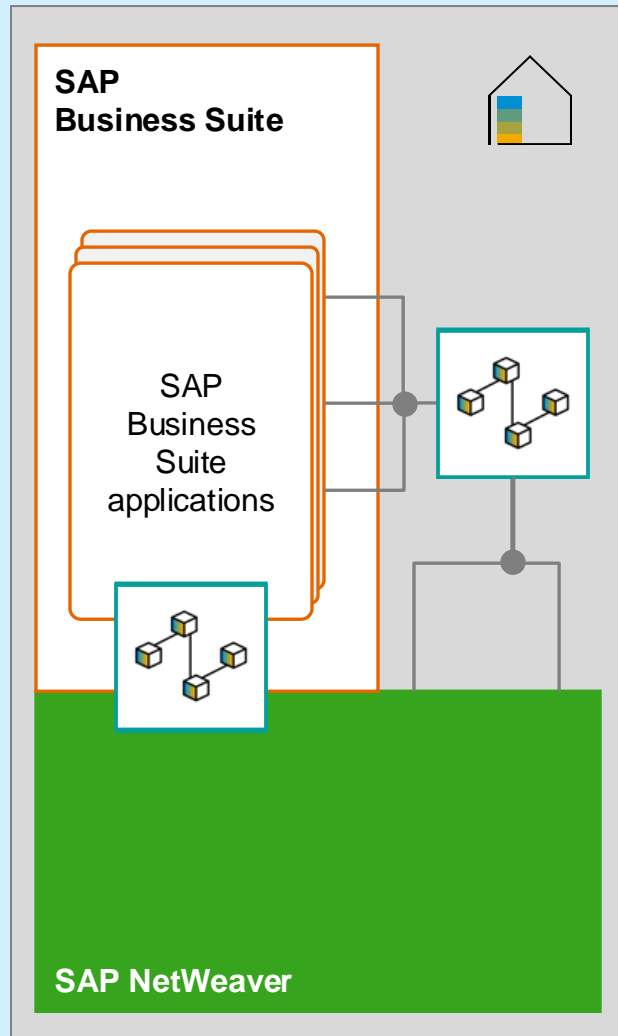
Processes

Keep the **operations**
effective and efficient

5

Operations

ERP Classic extensibility: Good and bad.



**Classic,
custom ABAP
development**

Use and modify
all SAP objects

All SAP objects can be used in custom code

```
10 data mstart type mara mstart.  
11  
12 select single mstart from mara into mstart where
```

**SAP objects can be
modified**

```
18 *  
19 *      This form is called from form FV45PF0K  
20 *  
21 *-----  
22 FORM USEREXIT_MOVE_FIELD_TO_KOMK.  
23 *{  INSERT      &$$$&$$$&S  
24 * If...here I modify the SAP code ...*  
25 *}  INSERT  
26  
27 *  KOMK-zzfield = xxxx-zzfield2.  
28  
29 ENDFORM.  
30 *eject  
31
```

PRO

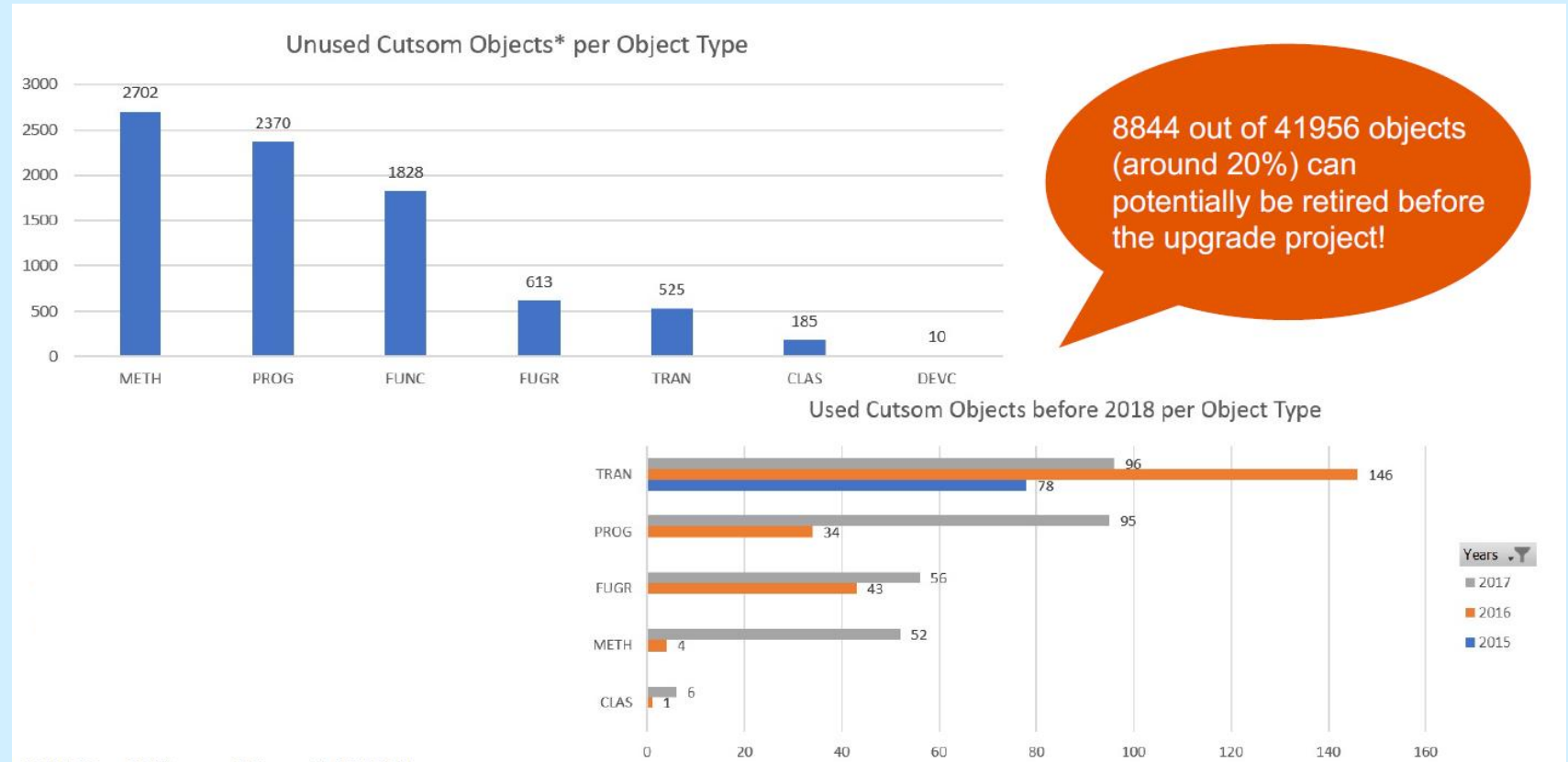
No restriction for extensions ⇒ Extremely flexible and powerful

CON

There is no interface between SAP code and the extension
SAP software changes lead to high test and adaptation efforts

→SAP upgrade effort increases and agility and innovation speed decrease

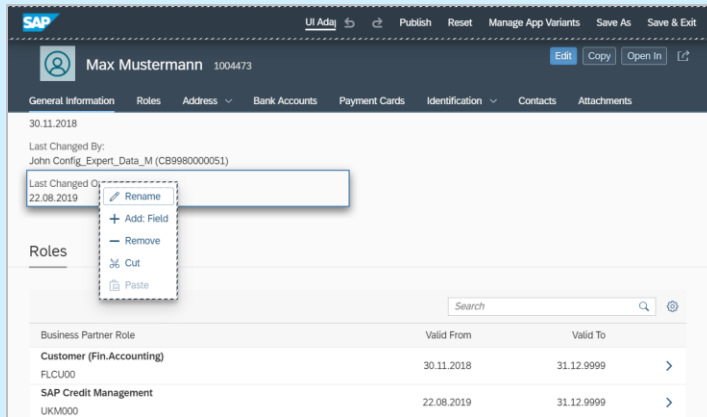
ERP classic extensions – corporate memory lapse



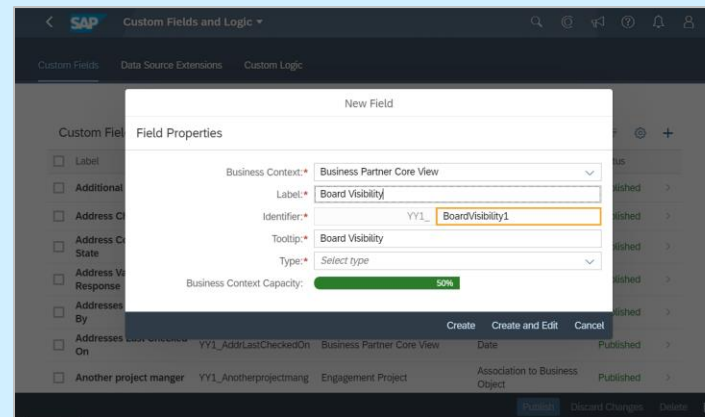
Give me an example of a clean core system



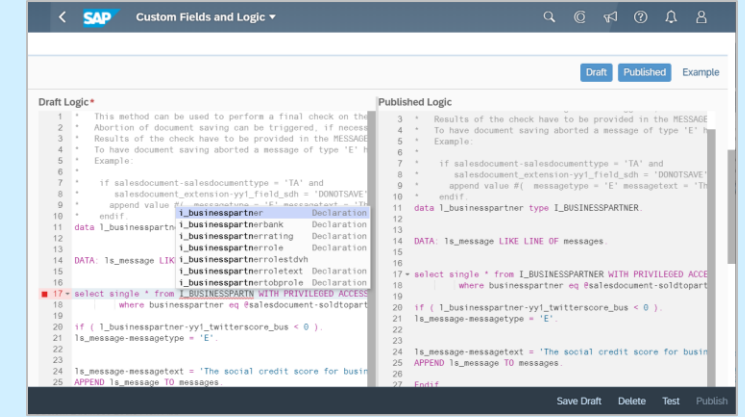
S/4HANA Key User Extensibility



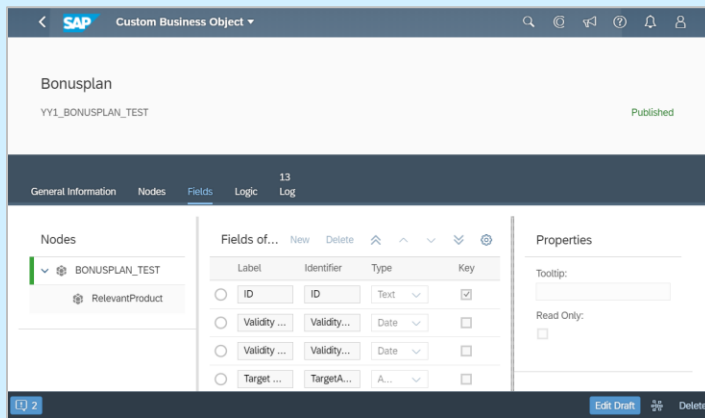
UI adaptation mode – adaptation mode with drag-and-drop configuration



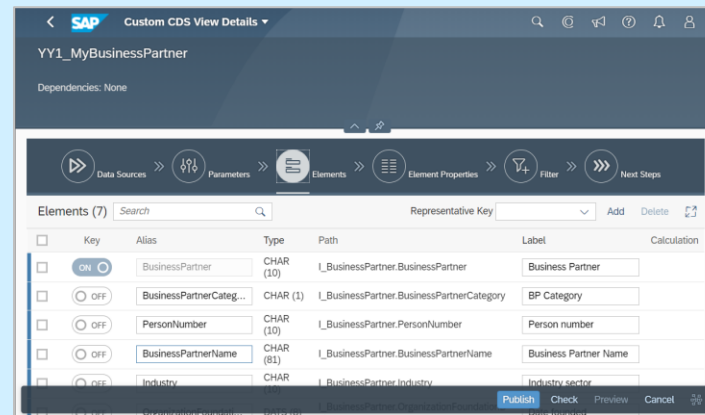
Custom fields SAP Fiori app



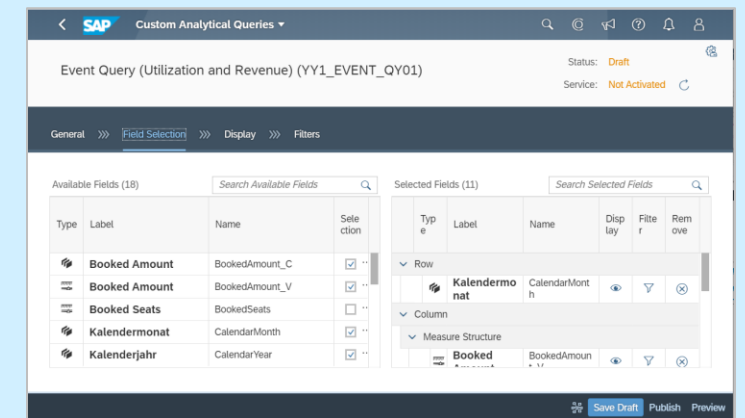
Custom logic SAP Fiori app



Custom business objects SAP Fiori app

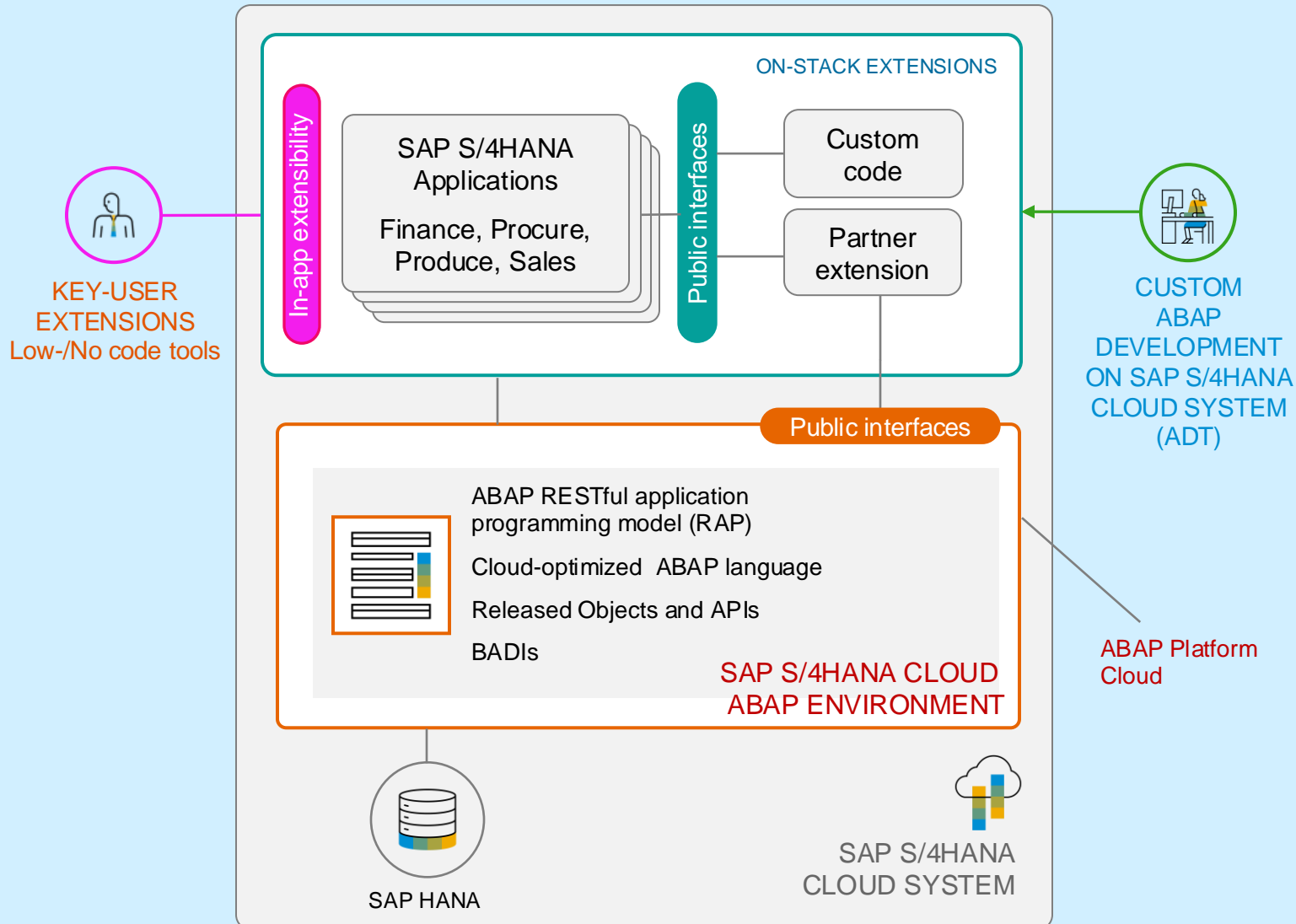


Custom CDS views SAP Fiori app



Custom analytical queries SAP Fiori app

SAP S/4HANA Public Cloud – Developer Extensibility



ENABLE CUSTOM ABAP DEVELOPMENT DIRECTLY ON SAP S/4HANA CLOUD STACK

RULES

Clear separation between SAP solutions and extensions

- Only stable and reliable public interfaces and released objects from both ABAP platform and SAP S/4HANA Cloud applications can be used
- No modifications

A more controlled ABAP environment – ABAP cloud development



Custom ABAP on SAP S/4HANA Cloud

ABAP development tools in Eclipse
Cloud-optimized ABAP
Proven ABAP transport management

Access to public SAP APIs ONLY – otherwise, syntax error!

No access to old dynpro APIs
No direct select on the MARA table
from SAP

Local APIs from SAP S/4HANA

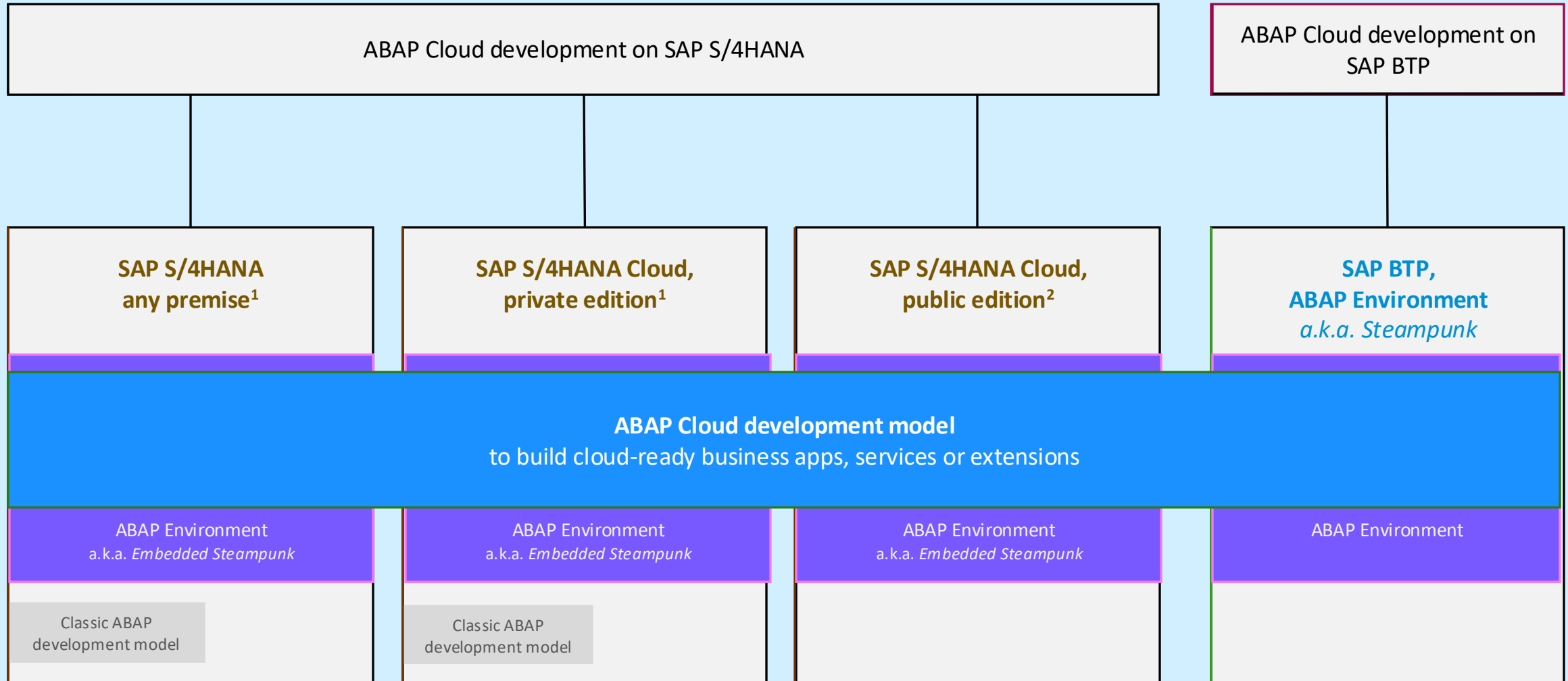
SELECT products from
SAP S/4HANA tables using the public
i_product CDS view

```
4 CREATE PUBLIC.
5
6 PUBLIC SECTION.
7     INTERFACES if_oo_adt_classrun.
8 PROTECTED SECTION.
9 PRIVATE SECTION.
10 ENDClass.
11
12
13 CLASS zcl_bgtest IMPLEMENTATION.
14
15 METHOD if_oo_adt_classrun~main.
16
17     DATA lv_countryname TYPE I_CountryText-CountryName.
18
19     SELECT CountryName FROM I_CountryText WHERE Language = @sy-langu ORDER BY CountryName INTO @lv_countryname.
20     out->write( lv_countryname ).
21     ENDSELECT.
22
23
24 CALL FUNCTION 'POPUP_TO_CONFIRM'.
25 SELECT matnr FROM mara INTO TABLE @DATA(lt_mara).
26
27 SELECT ProductExternalID FROM i_product INTO TABLE @DATA(lt_mara_new).
28
29 ENDMETHOD.
```

3 errors, 0 warnings, 0 others

Description	Resource	Path	Location	Type
Use of Function Module POPUP_TO_CONFIRM is not permitted.	zcl_bgtest.aclass	/X1E_EN/.adt/classlib...	line 24	ABAP Syntax C...
Use of Table MARA is not permitted.	zcl_bgtest.aclass	/X1E_EN/.adt/classlib...	line 25	ABAP Syntax C...

ABAP Cloud – common development model for SAP S/4HANA extensions



¹ SAP S/4HANA any premise and private cloud release ≥ 2022

² SAP S/4HANA public cloud release ≥ 2208, new customers

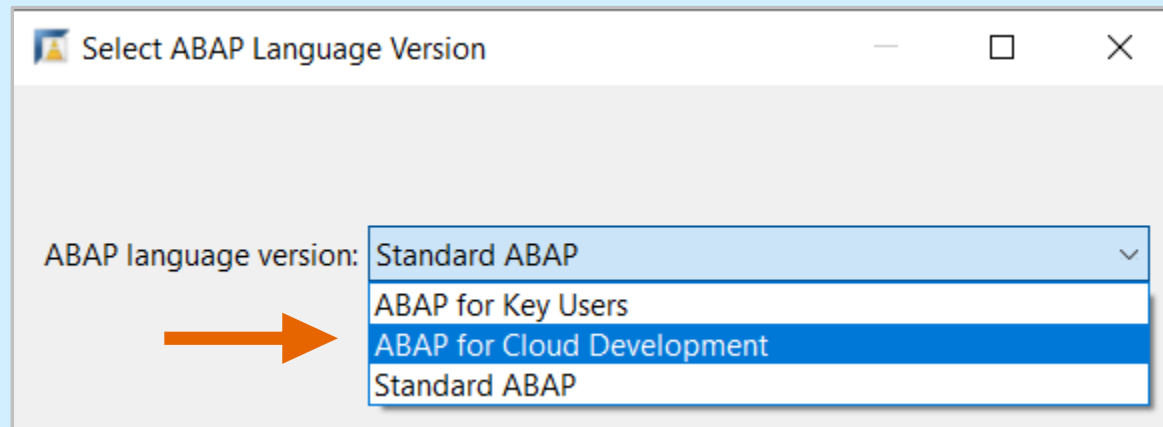
SAP S/4HANA, private cloud and on-premise editions



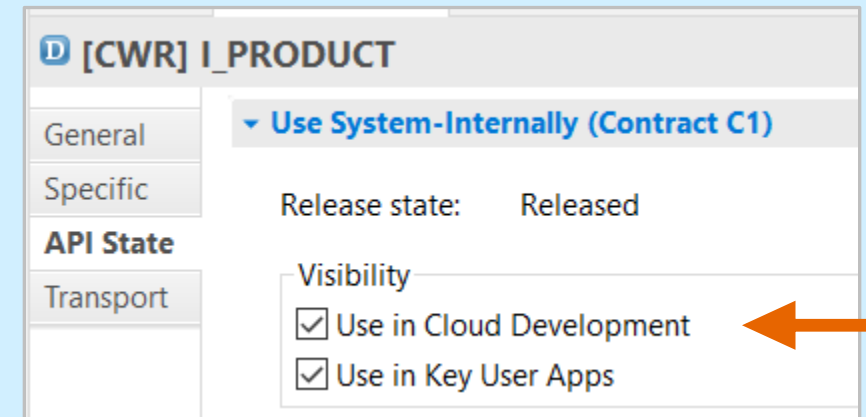
ABAP language version and public SAP APIs

How can I use **ABAP cloud development** in the private cloud and on-premise editions of SAP S/4HANA?

- Switch on the strict ABAP cloud syntax check for the selected custom ABAP objects (such as a new Z-class)
- Use the public APIs that SAP released for ABAP cloud development (such as the CDS view I_PRODUCT)



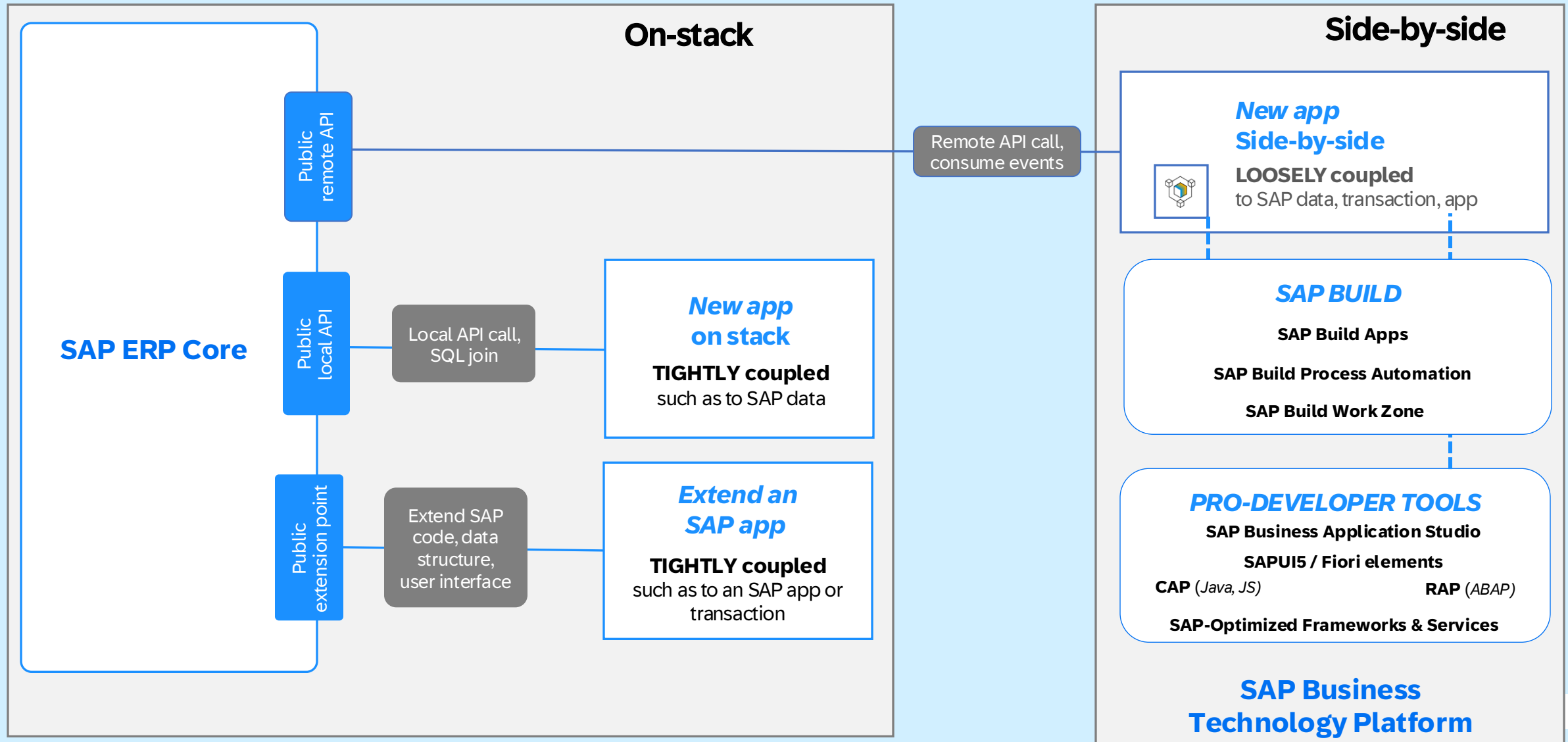
Switch from classic ABAP extensibility (standard ABAP) to ABAP cloud (ABAP for cloud development)



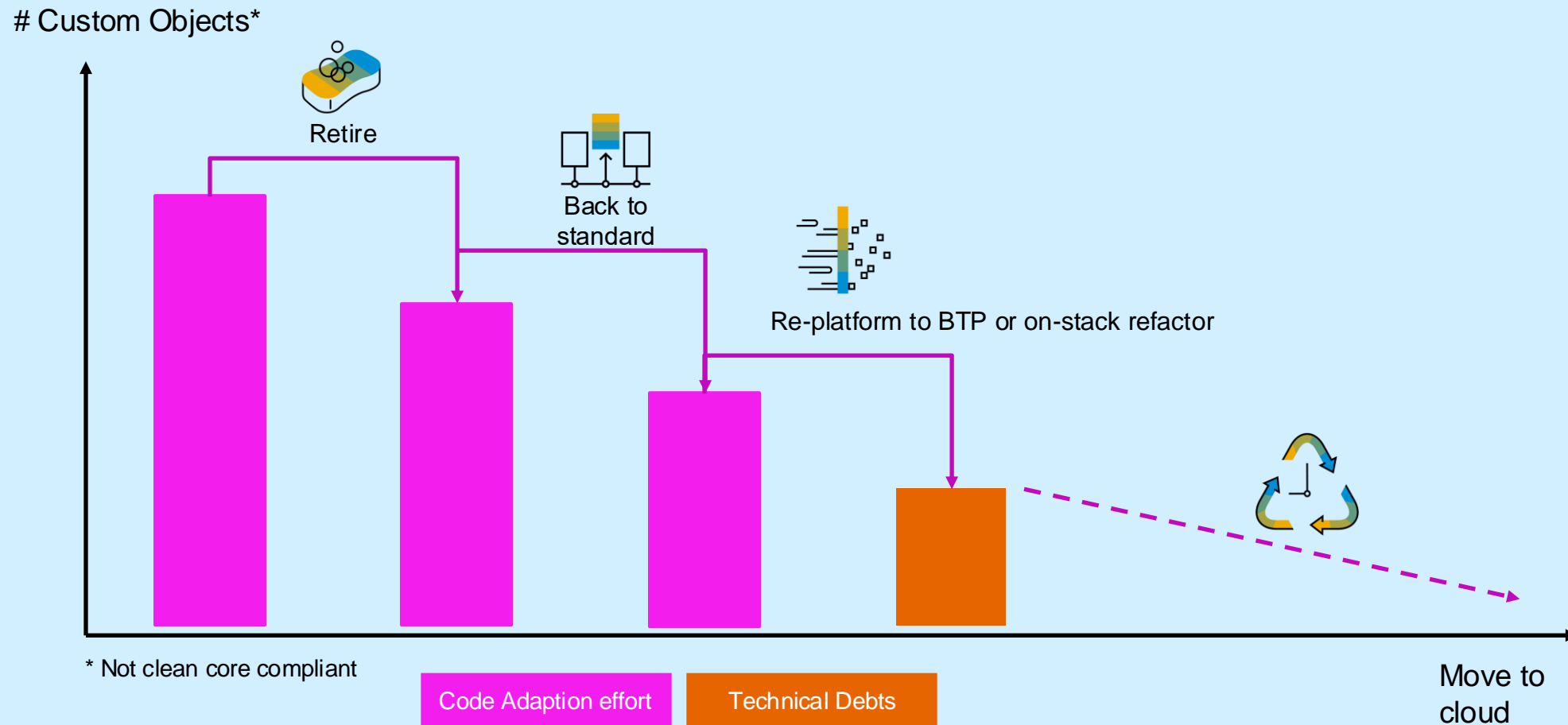
SAP released the CDS view for *ABAP cloud development*

What does Clean Core Look Like with BTP?

Side-by-side extensions on SAP BTP are loosely coupled



Clean up



Free Clean Core Assessment Program



What is it?

A program to help customers advance on their clean core journey by:

- Understanding the clean core dimensions principles and benefits
- Providing an SAP guided approach for ERP modernization
- Validating extension use cases from customer's code base



Key Output

- Readout of clean core analysis
- Clean core solution approach
- Architecture recommendation for select developments
- BOM proposal for BTP services

Project Phases

(Times are in working days)



SAP Led



Customer Led

Discover Day 0

+ Kickoff Meeting

+ Clean Core Maturity Assessment

Prepare Day 5

Prepare ERP system (DEV)

Enable usage data collection (PROD)

Configure Cloud Connector

Connection Test

Analyze Day 25

Readout of technical analysis

Correlation of usage data

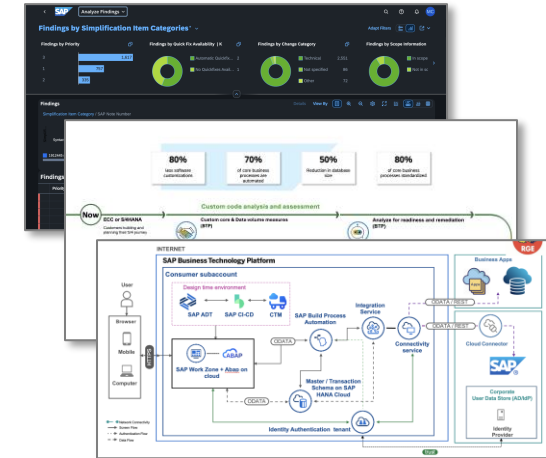
Functional team to validate and confirm proposed scope for SAP deep dive

Deliver Day 30

Present Clean core benefits

Present top clean core recommendations

Develop clean core Roadmap

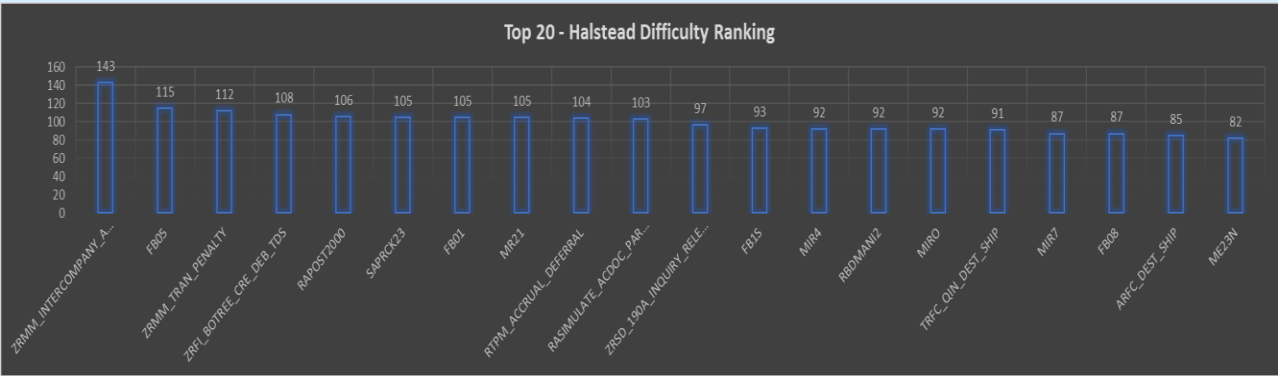
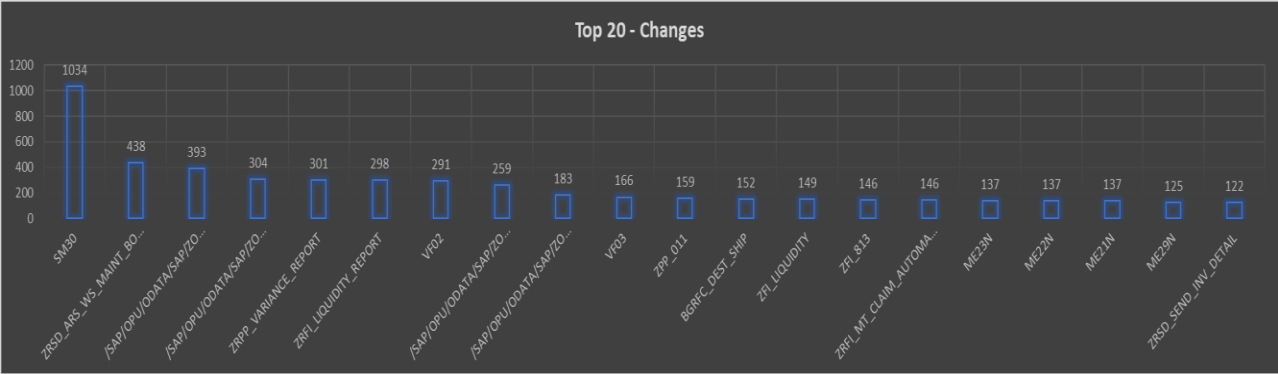
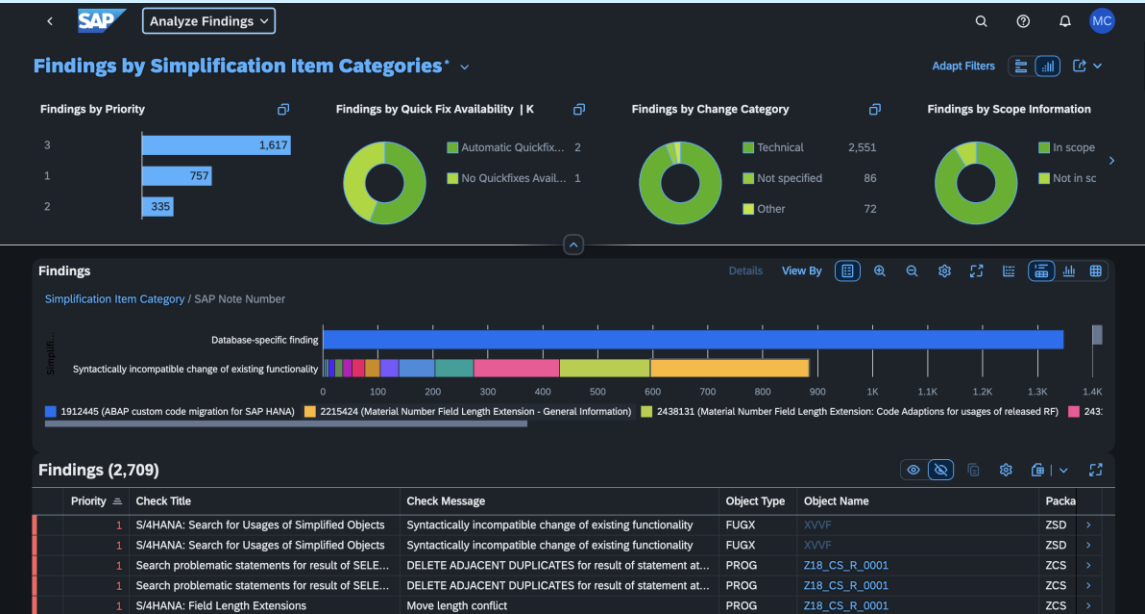


Contact



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Example program output: Identifying areas of focus



+ usage analysis data

Clean core genie: AI-powered customization recommendations



Customer code base,
analyzed by generative AI model

SAP recommendation, created
together with customer team

A		B		C		D		E		F	
Object Name		Overall Description		Functional Analysis		SAP Recommendation		Approach		SAP Services/ SAP BTP Services	
ZRFI_INCOMING_PAYMENTS_POST		Post Incoming Payments		The program 'ZRFI_INCOMING_PAYMENTS_POST' is designed to handle the posting of incoming payments. It allows users to select payment records based on various criteria such as payment reference, bank account number, and posting date. The program can display pending, posted, or deleted payment records. It also integrates with SAP's BAPI functions to check and post accounting documents. Additionally, the program sends email notifications with payment details and updates the database with the posted payment information. This functionality is crucial for financial operations, ensuring that incoming payments are accurately recorded and processed in the system.		First, verify if standard S/4HANA fits → Retire. If not, build it on SAP BTP replacing the Z-Tables in use and using the according APIs for S/4HANA to post incoming payments.		Side-by-Side		SAP Cloud Foundry/ SAP BTP Kyma as runtime	
ZTMM_PEN_TRANS		Penalty to Transporter		The program 'ZTMM_PEN_TRANS' is designed to manage penalties imposed on transporters for various reasons such as shortages, transshipment, loading other company goods, and more. It maintains a detailed record of penalties with specific indicators and associated data like material number, plant, storage location, batch number, posting date, and more. This helps in tracking and managing penalties efficiently, ensuring that transporters are held accountable for any discrepancies or issues during transportation. The program also calculates the net value in document currency for each penalty, providing a clear financial impact of the penalties imposed.		Parle-specific application - likely no SAP standard available. Rebuild on S/4HANA using whitelisted CDS Views for material documents and developer extensibility.		On-Stack		S/4HANA Developer Extensibility	
ZRSDD_190_NEW_SPOILED_CLAIM		Spoiled Stock Claim Process		The program 'ZRSDD_190_NEW_SPOILED_CLAIM' is designed to manage the spoiled stock claim process. It allows users to upload data related to spoiled stock, validate the data, and create sales orders for the spoiled stock. The program also provides functionalities to display data, search for reference invoices, and reverse inquiries. The program ensures that the data is accurate and consistent by performing various checks and validations. It also calculates the claim amounts based on the unloaded data and updates		Parle-specific application - likely no SAP standard available. Rebuild on S/4HANA using whitelisted CDS Views for sales/invoice documents and developer extensibility.		On-Stack		S/4HANA Developer Extensibility	

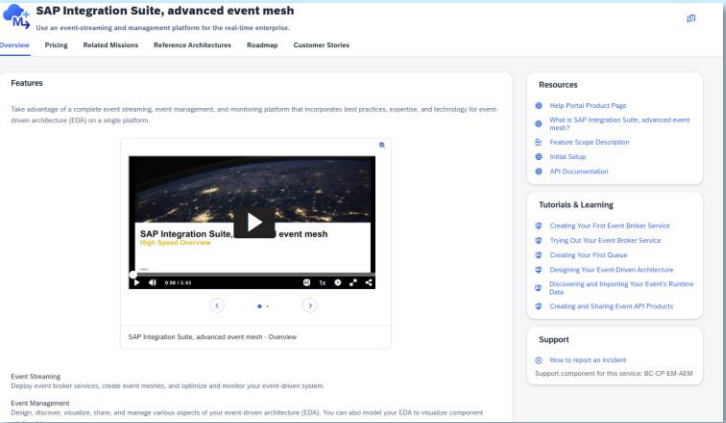
<https://fioriappslibrary.han>
First high-level analysis against the functionality provided by an potentially be replaced by 'Post Incoming Payments' (Fiori ID: F0858). Interface and leverage standard incoming payments.

SAP S/4HANA Transportation apps for managing transport used to substitute this customer 'Freight Orders' and 'Manage overaged'.

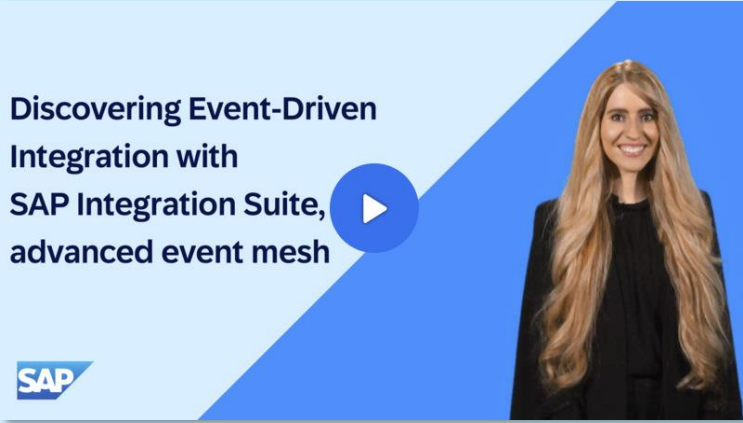
SAP S/4HANA provides standard and handling claims through 'stock', 'Create Sales Orders', these apps can potentially be more integrated and user-friendly.

SummaryStructure_1Structure_2Structure_3Structure_4Structure_5Structure_6Structure_7Structure_8Structure_9Structure_10Structure_11Structure_12+

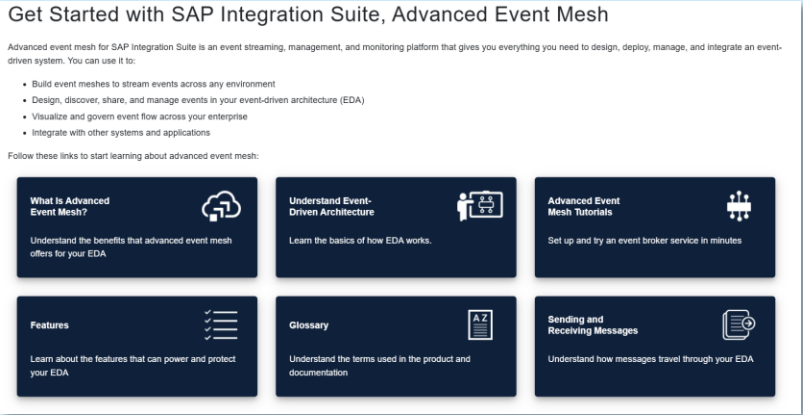
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[Learning Journey](#)



[Documentation](#)



Thank you.

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