



Hausmesse 2023

FIT TO STANDARD, BUT DO IT YOUR OWN WAY – KUNDENENTWICKLUNGEN IN DER SAP CLOUD



Julian Büttner

Auf einen Blick

DER REFERENT



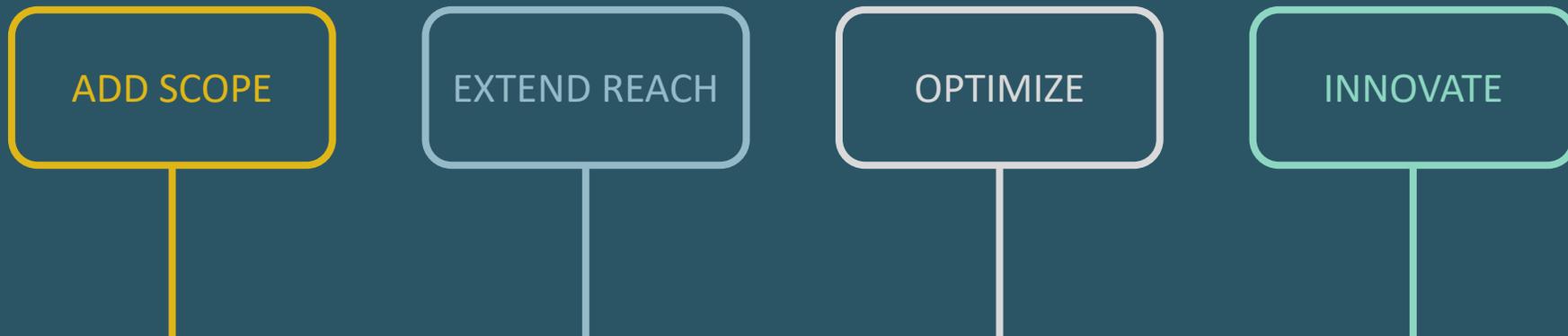
JULIAN BÜTTNER

Senior Consultant

- ✓ SAP BTP
- ✓ SAP Fiori

Fit to Standard, but do it your own way – Kundenentwicklungen in der SAP Cloud

ERP BRAUCHT ERWEITERBARKEIT!



Fit to Standard, but do it your own way – Kundenentwicklungen in der SAP Cloud

AGENDA

3-Tier Extensibility Model for SAP S/4HANA

Key User Extensibility

Developer Extensibility

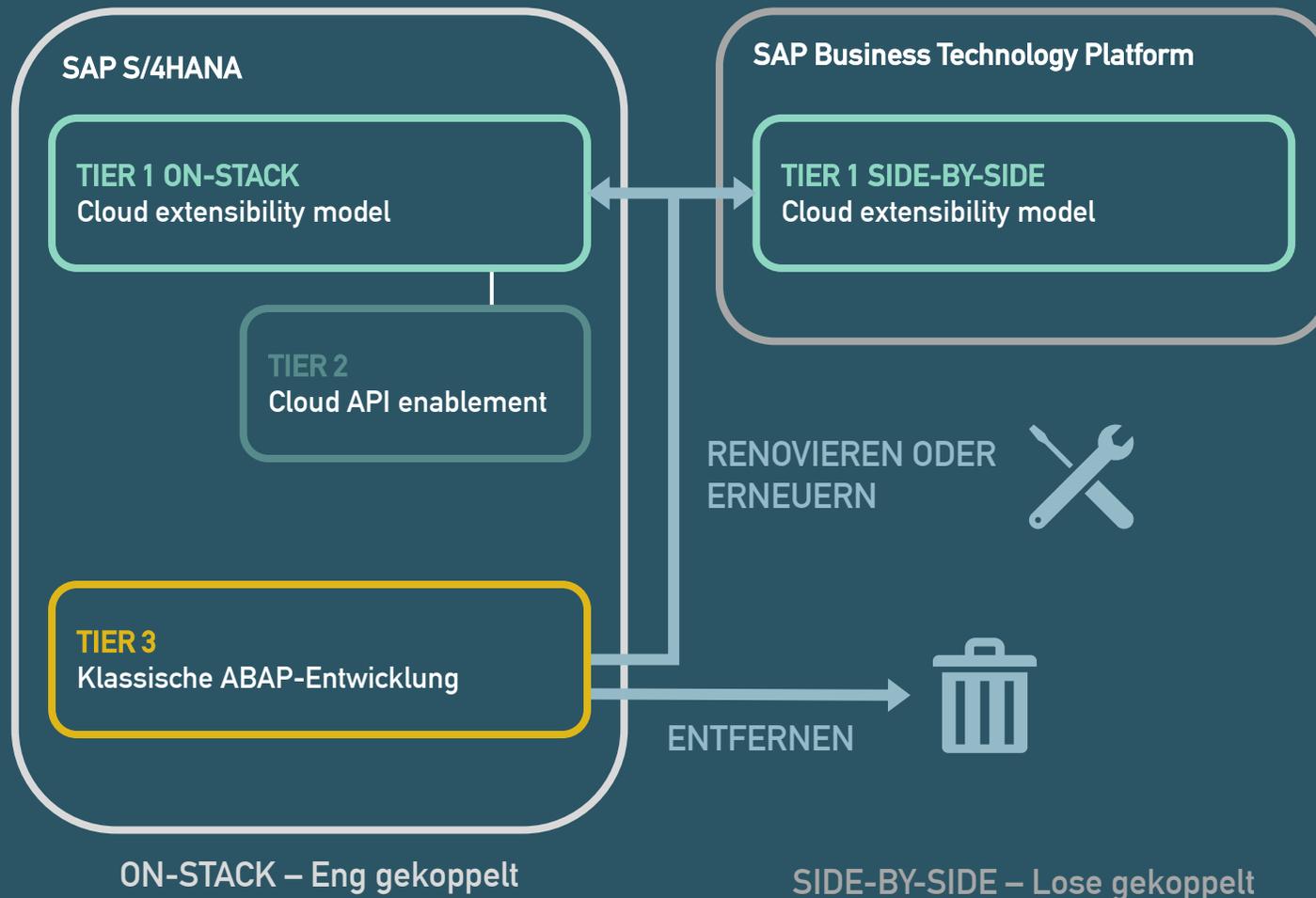
Side-by-Side Extensibility

Entscheidungskriterien

Kostenstruktur und Lizenzmodelle

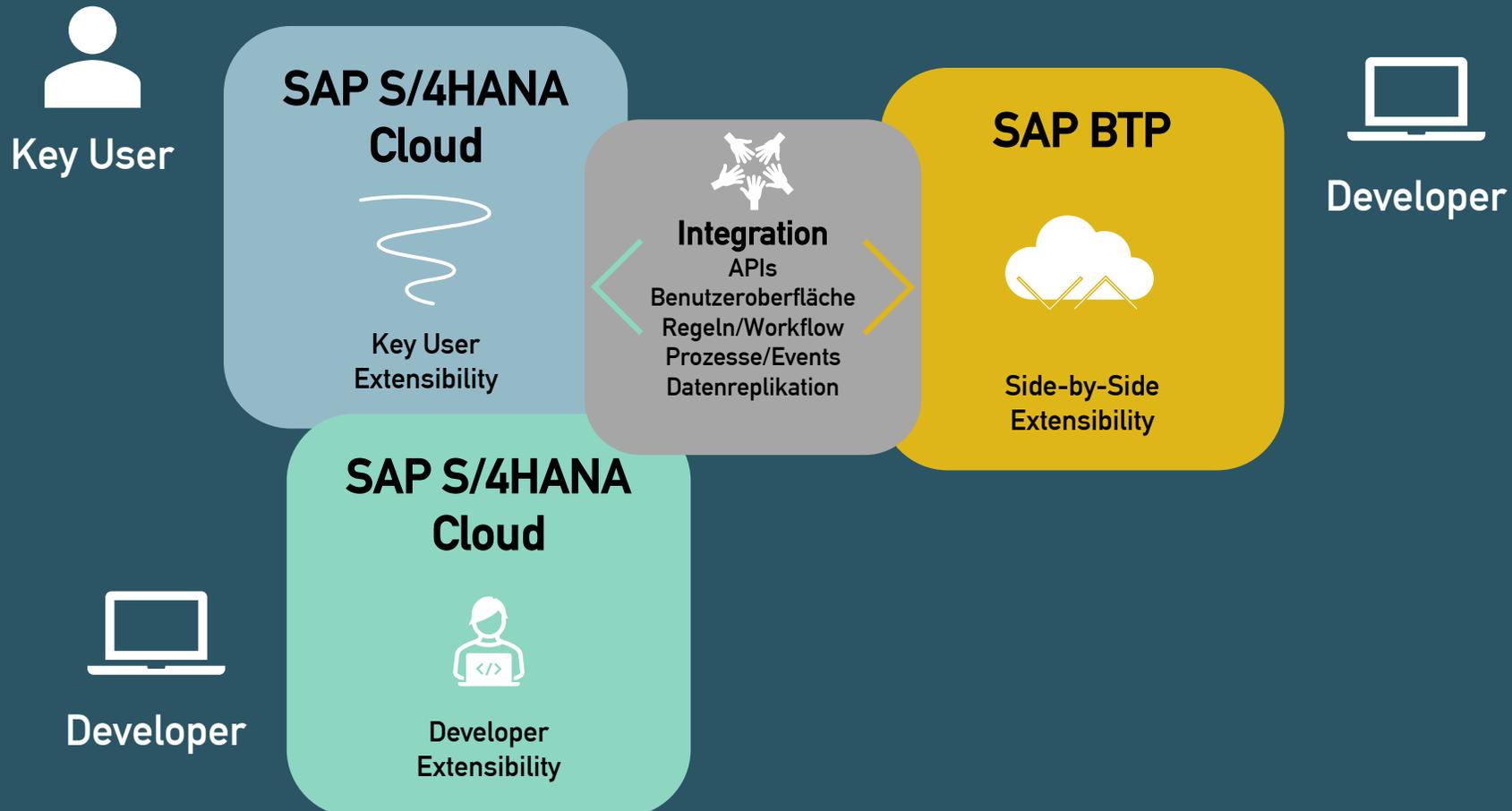
3-Tier Extensibility Model for S/4 HANA On-Premise and Private Cloud

ÜBERSICHT



3-Tier Extensibility Model for S/4 HANA On-Premise and Private Cloud

S/4HANA CLOUD EXTENSIBILITY MODEL



KEY USER (IN-APP) EXTENSIBILITY

**SAP S/4HANA
Cloud**

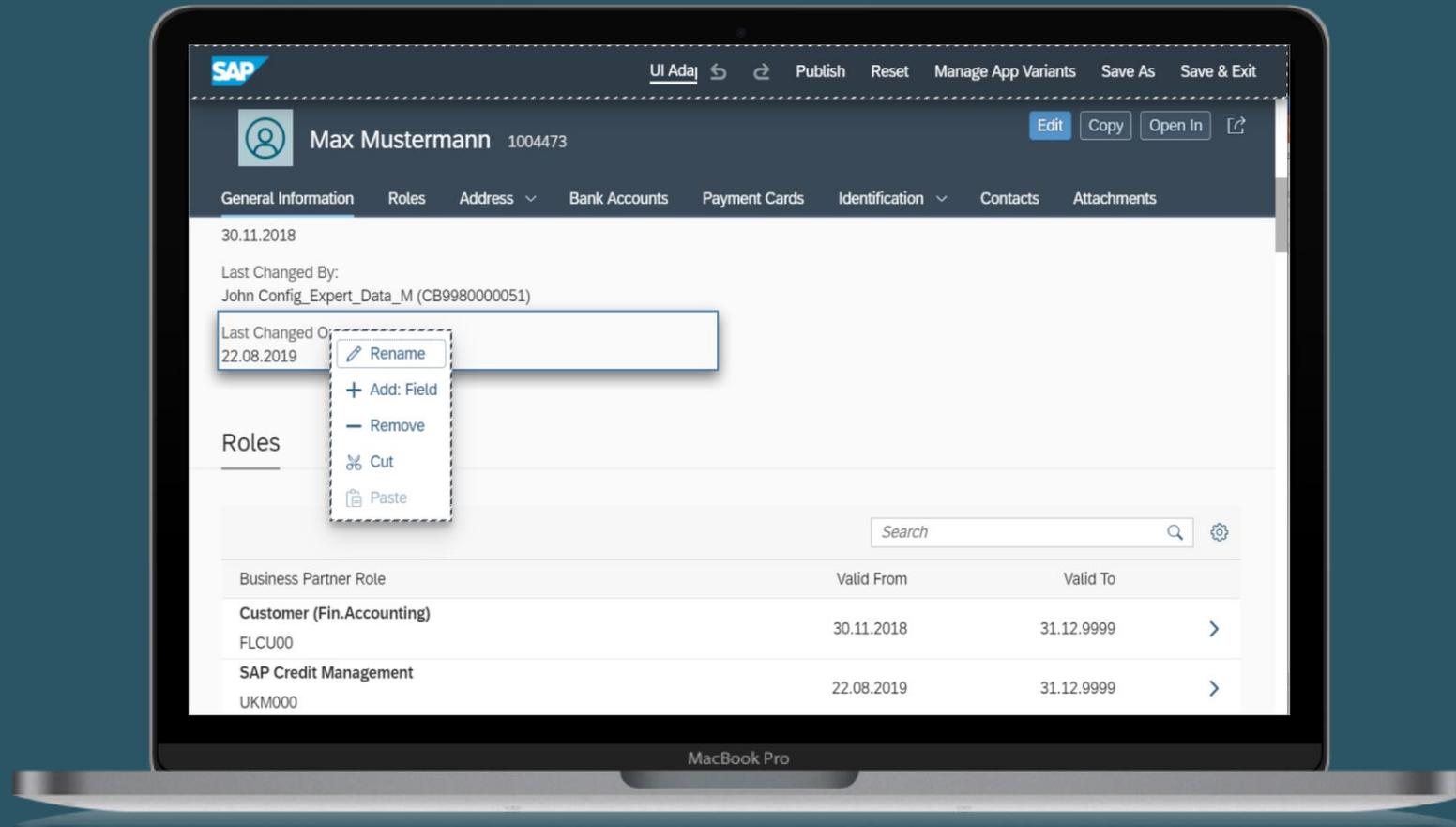


Key User
Extensibility

- ✓ Benutzeroberflächen anpassen
- ✓ Analytische Abfragen erstellen
- ✓ Daten bereitstellen
- ✓ Formulare / E-Mail-Vorlagen erstellen
- ✓ Anwendungslogik hinzufügen
- ✓ Datenbankfelder und eigene Business-Objekte anlegen

Key User (In-App) Extensibility

BENUTZEROBERFLÄCHE ANPASSEN





Max Mustermann 1004473

Edit

Copy

Open In



General Information

Roles

Address ▾

Bank Accounts

Payment Cards

Identification ▾

Contacts

Attachments

30.11.2018

Last Changed By:

John Config_Expert_Data_M (CB9980000051)

Last Changed On

22.08.2019

✎ Rename

+ Add: Field

- Remove

✂ Cut

📄 Paste

Roles

Search



Business Partner Role

Valid From

Valid To

Customer (Fin.Accounting)

FLCU00

30.11.2018

31.12.9999

**SAP Credit Management**

UKM000

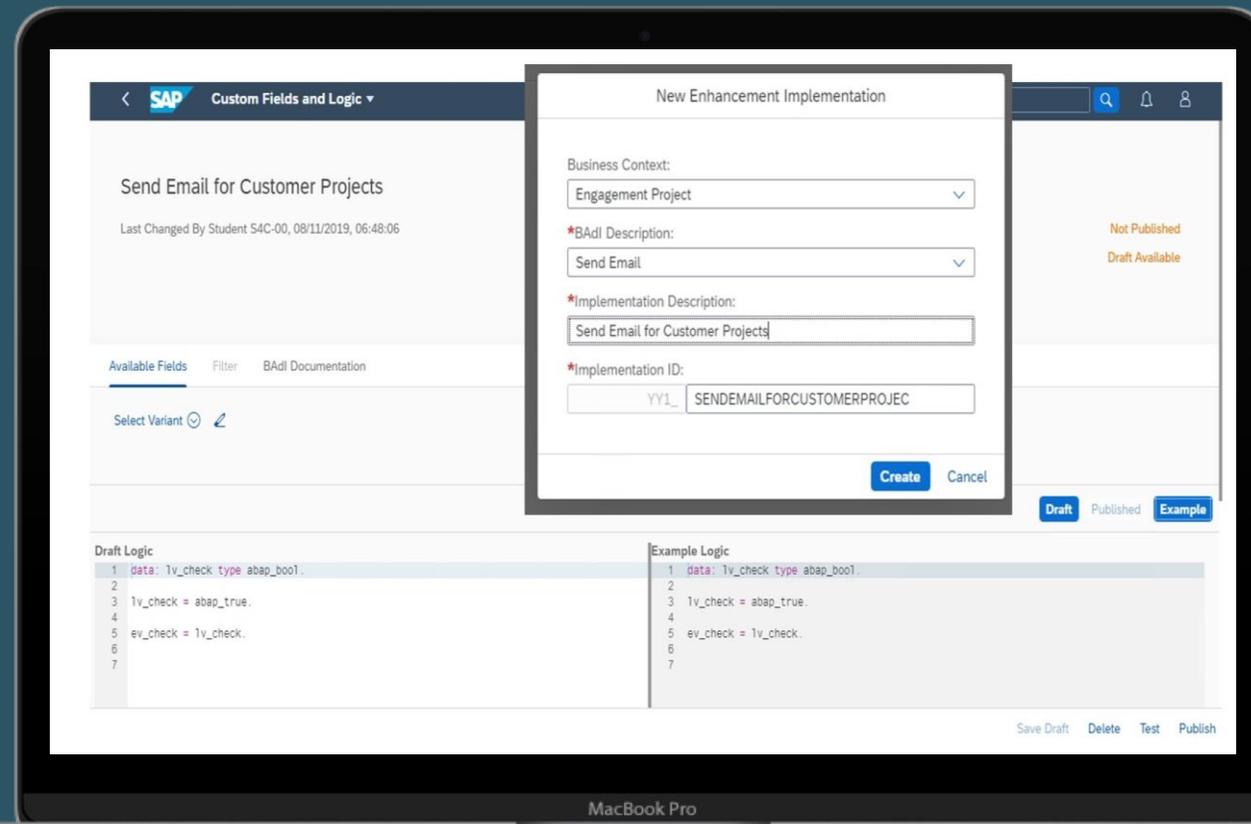
22.08.2019

31.12.9999



Key User (In-App) Extensibility

ANWENDUNGSLOGIK HINZUFÜGEN



Send Email for Customer Projects

Last Changed By Student S4C-00, 08/11/2019, 06:48:06

Available Fields Filter BAdI Documentation

Select Variant

New Enhancement Implementation

Business Context:

Engagement Project

*BAdI Description:

Send Email

*Implementation Description:

Send Email for Customer Projects

*Implementation ID:

YY1_ SENDEMAILFORCUSTOMERPROJEC

Create Cancel

Not Published

Draft Available

Draft Published Example

Draft Logic

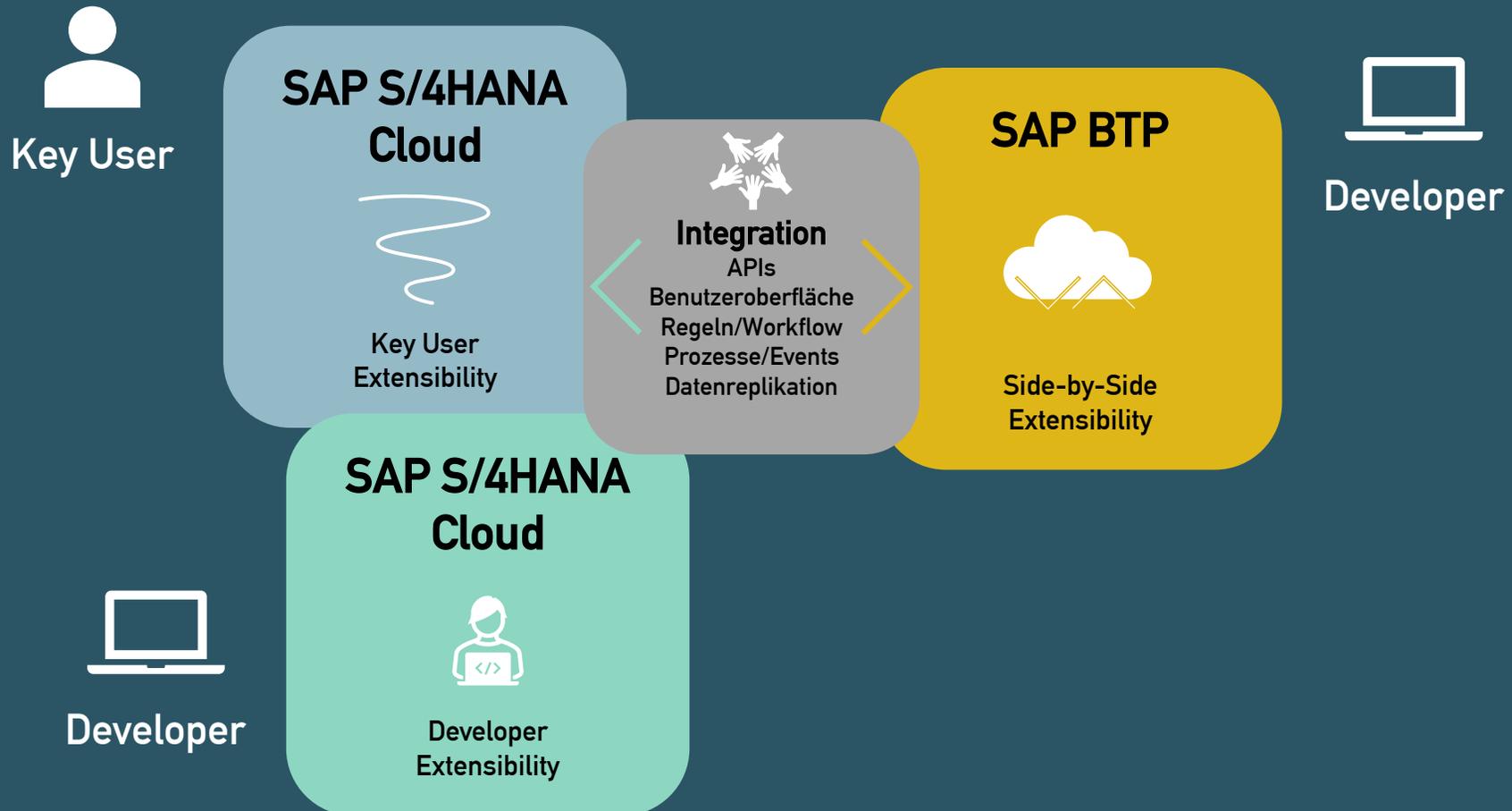
```
1 data: lv_check type abap_bool.  
2  
3 lv_check = abap_true.  
4  
5 ev_check = lv_check.  
6  
7
```

Example Logic

```
1 data: lv_check type abap_bool.  
2  
3 lv_check = abap_true.  
4  
5 ev_check = lv_check.  
6  
7
```

3-Tier Extensibility Model for S/4 HANA On-Premise and Private Cloud

S/4HANA CLOUD EXTENSIBILITY MODEL



DEVELOPER (ON-STACK) EXTENSIBILITY

SAP S/4HANA Cloud

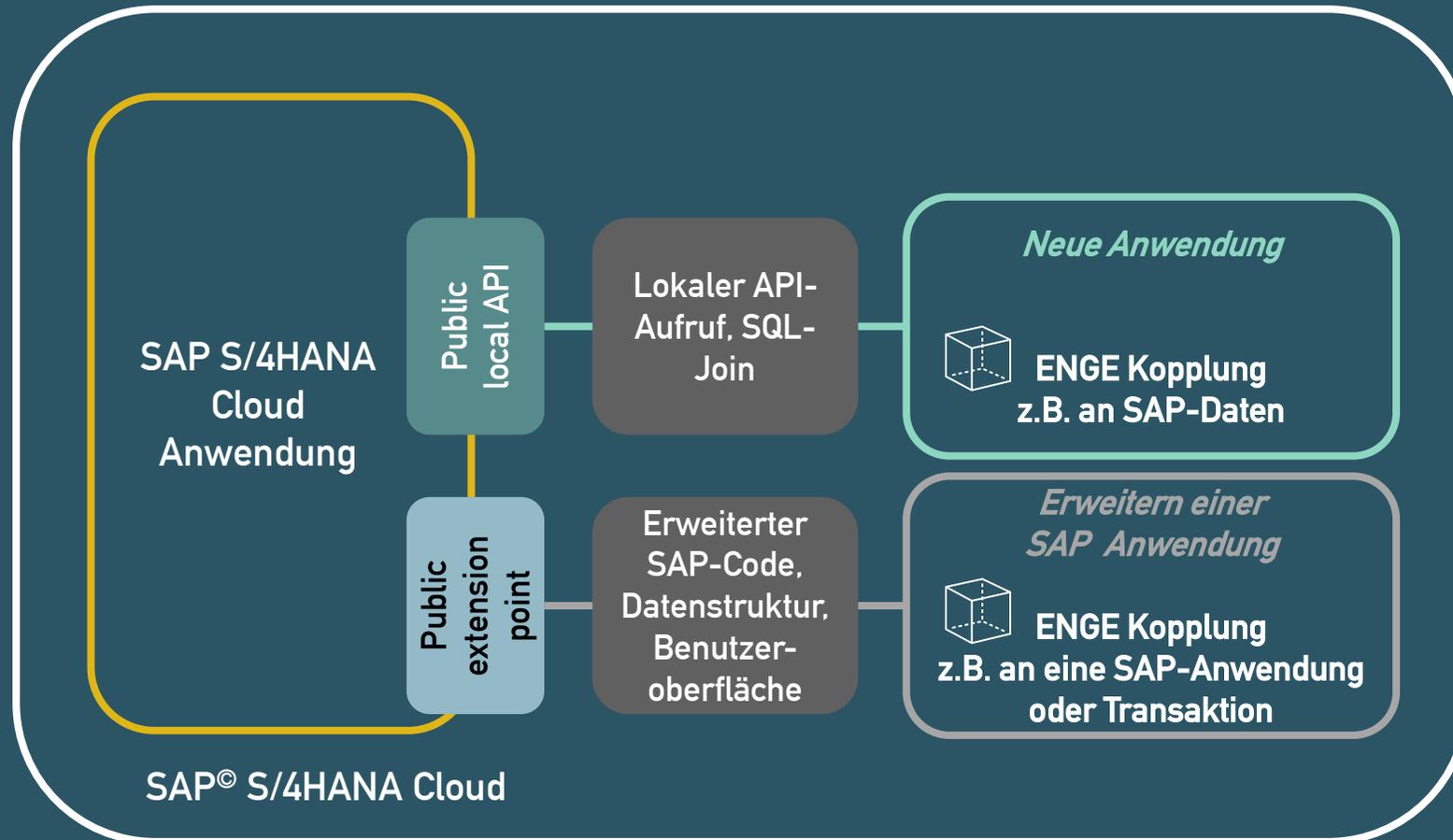


Developer
Extensibility

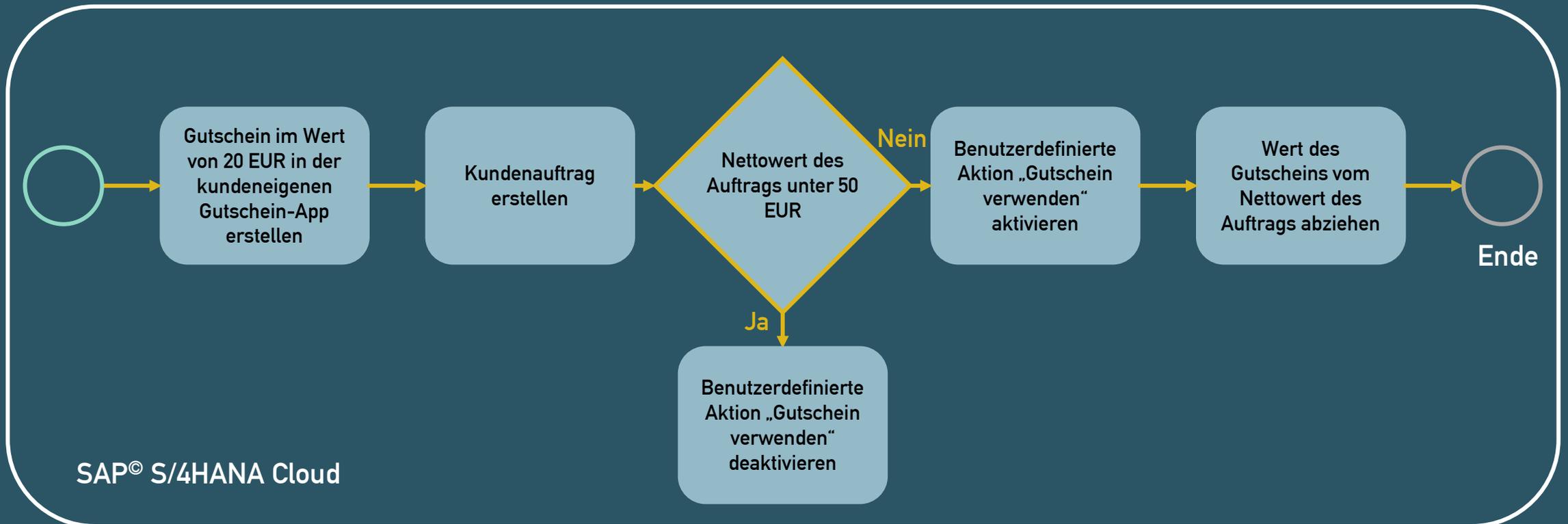
- ✓ Benutzerdefinierte Anwendungen erstellen
- ✓ Benutzerdefinierte Datenstrukturen erstellen
- ✓ Freigegebene SAP APIs nutzen/erweitern
- ✓ Remote-APIs erstellen
- ✓ Reuse Services verwenden (E-Mail-Service, Applikations-Log)

S/4HANA Cloud Extensibility Model

DEVELOPER (ON-STACK) EXTENSIBILITY

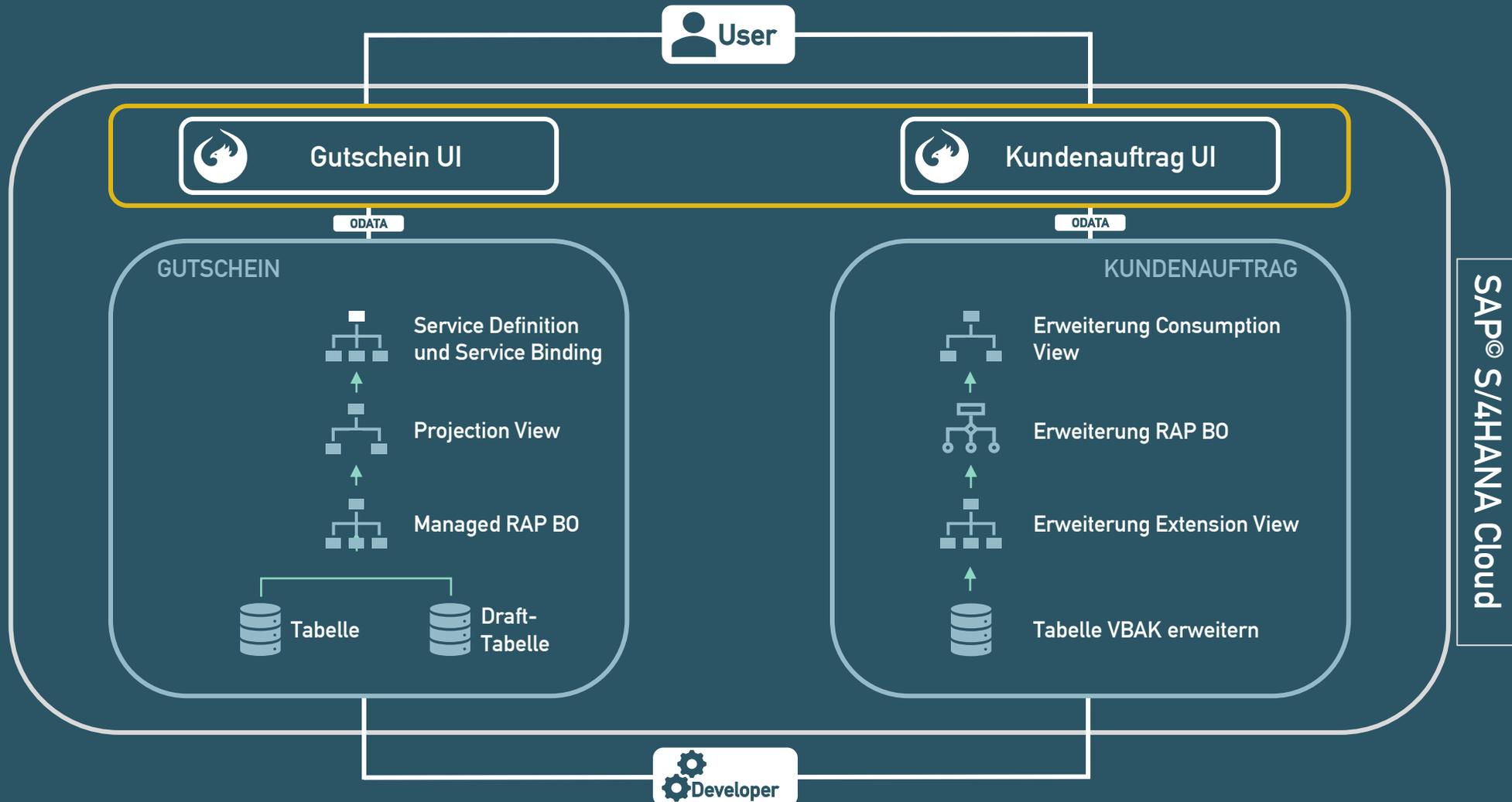


VERWENDUNG EINES GUTSCHEINS IM KUNDENAUFTRAG



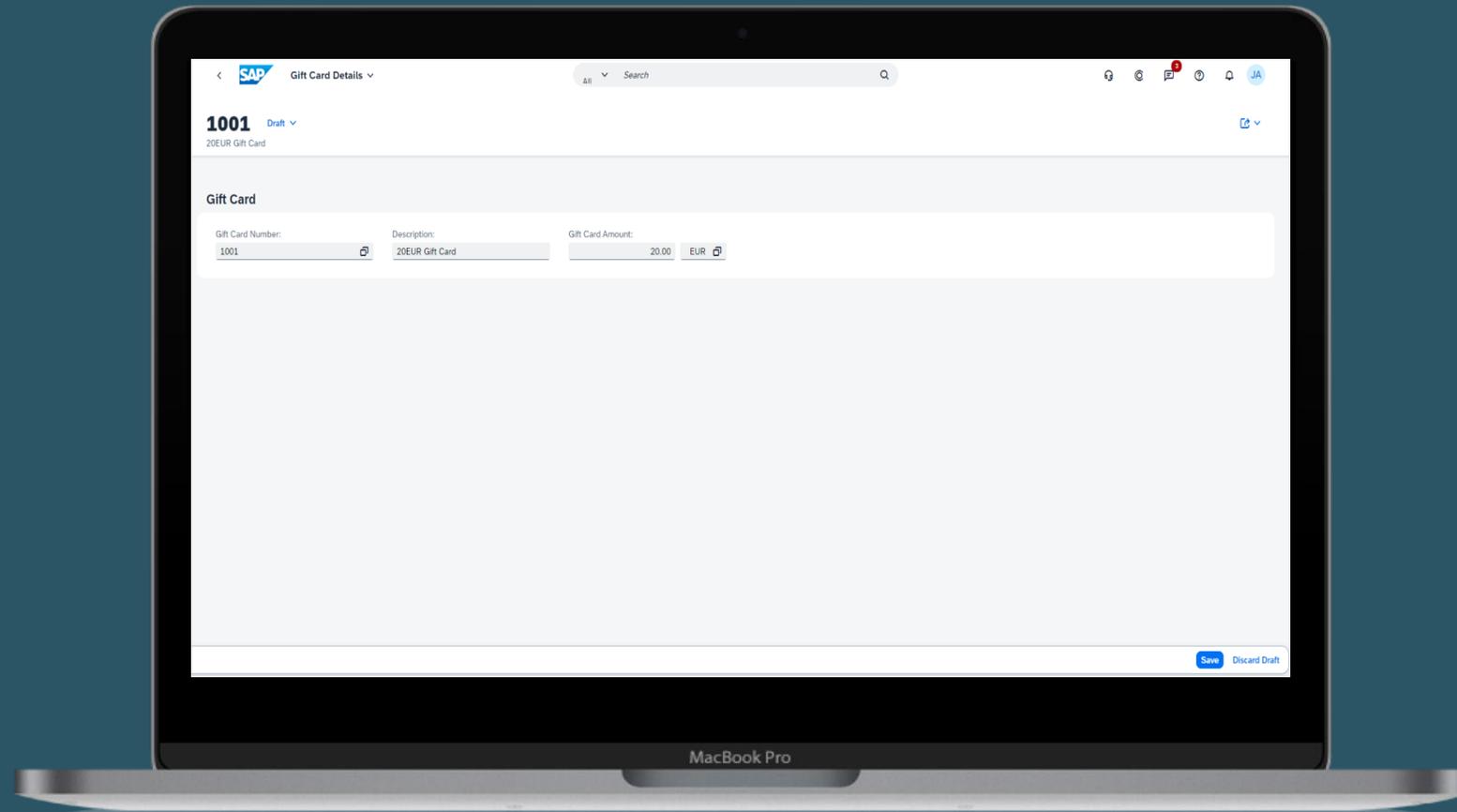
Developer (On-Stack) Extensibility

KONZEPT



Developer (On-Stack) Extensibility

GUTSCHEIN APP



1001

Draft ▾

🔗 ▾

20EUR Gift Card

Gift Card

Gift Card Number:

1001



Description:

20EUR Gift Card

Gift Card Amount:

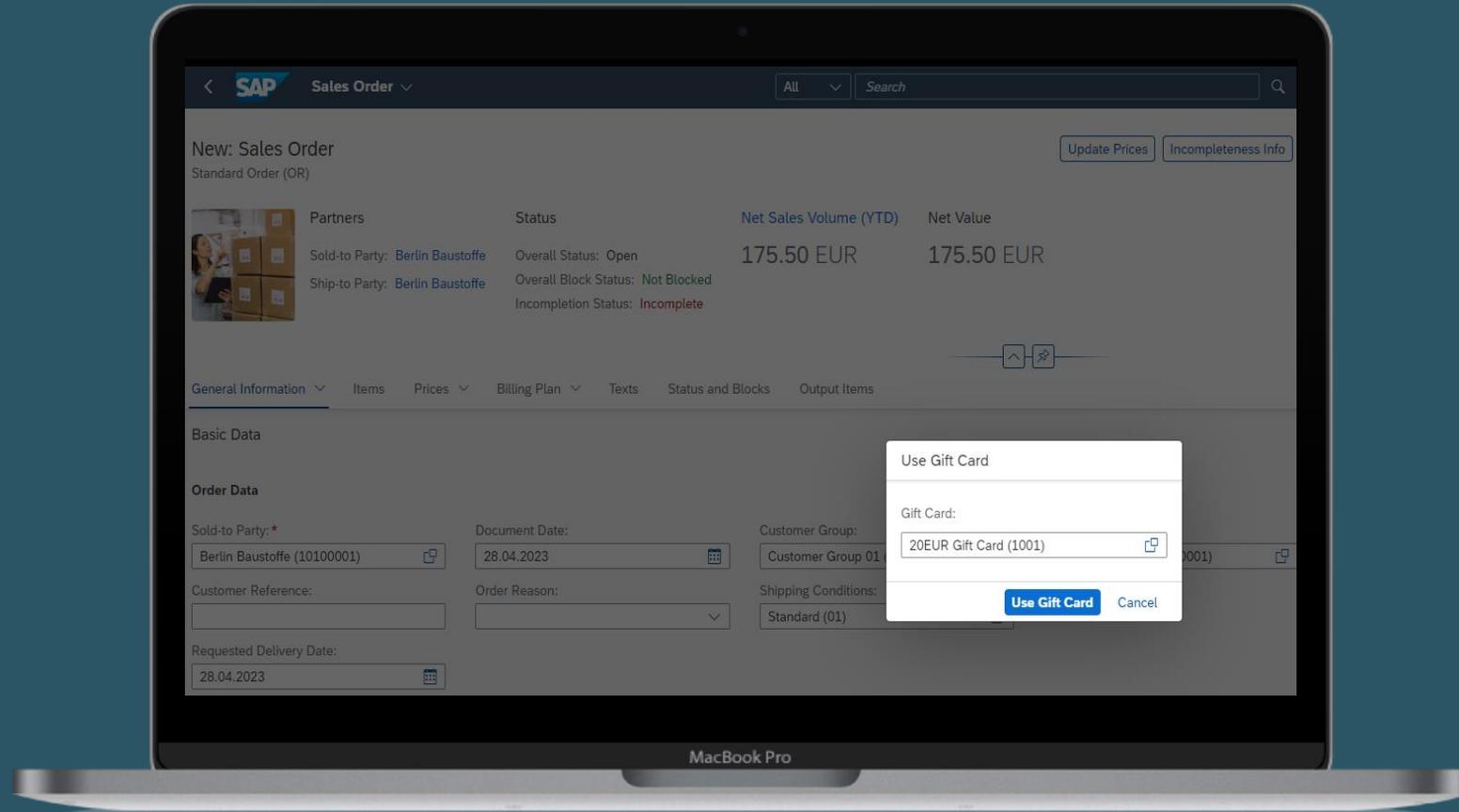
20.00

EUR



Developer (On-Stack) Extensibility

KUNDENAUFTRAG APP



New: Sales Order

Standard Order (OR)

Update Prices Incompleteness Info



Partners	Status	Net Sales Volume (YTD)	Net Value
Sold-to Party: Berlin Baustoffe	Overall Status: Open	175.50 EUR	175.50 EUR
Ship-to Party: Berlin Baustoffe	Overall Block Status: Not Blocked		
	Incompletion Status: Incomplete		



General Information Items Prices Billing Plan Texts Status and Blocks Output Items

Basic Data

Order Data

Sold-to Party: *	Document Date:	Customer Group:
Berlin Baustoffe (10100001)	28.04.2023	Customer Group 01
Customer Reference:	Order Reason:	Shipping Conditions:
		Standard (01)
Requested Delivery Date:		
28.04.2023		

Use Gift Card

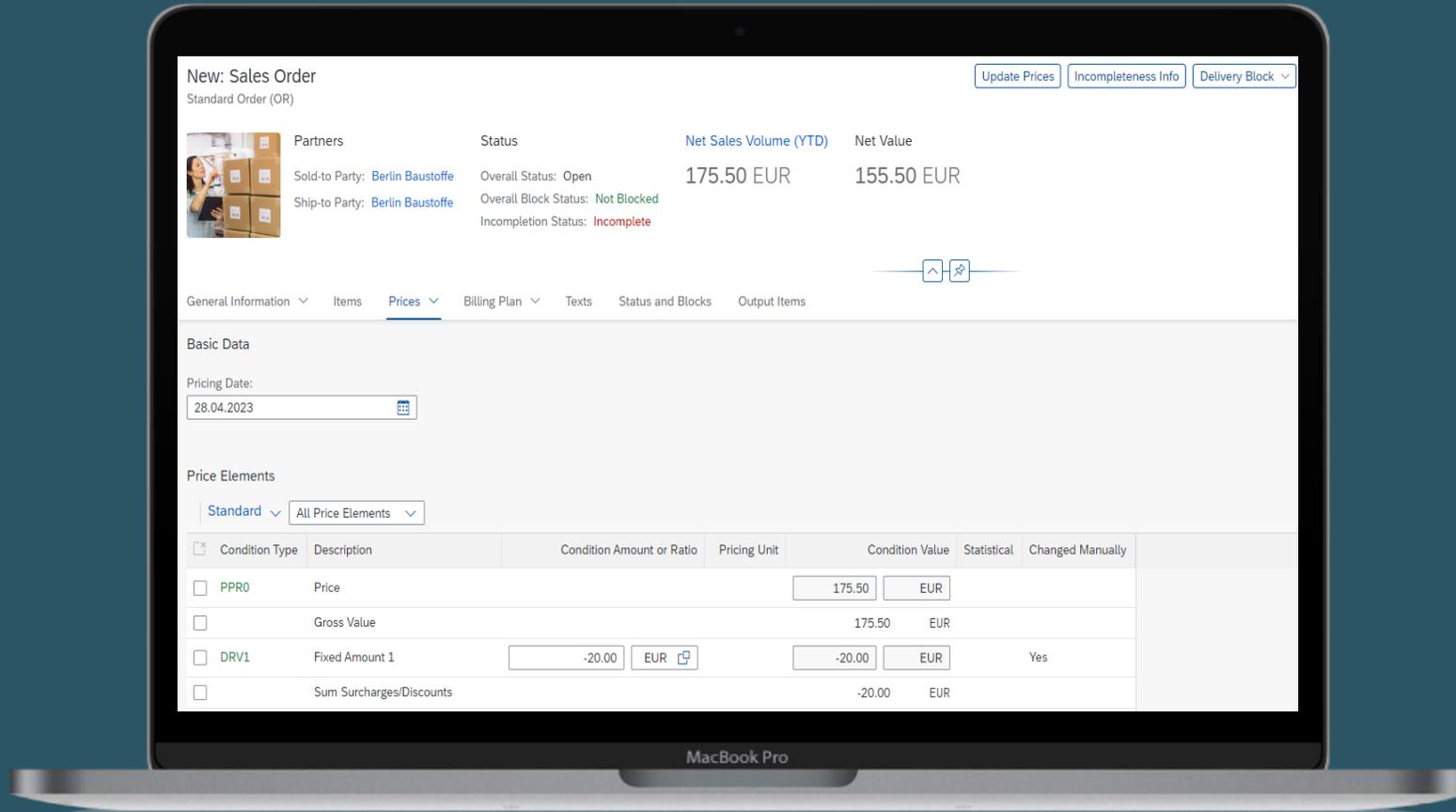
Gift Card:

20EUR Gift Card (1001)

Use Gift Card
Cancel

Developer (On-Stack) Extensibility

KUNDENAUFTRAG APP



New: Sales Order

Update Prices

Incompleteness Info

Delivery Block ▼

Standard Order (OR)



Partners

Sold-to Party: [Berlin Baustoffe](#)

Ship-to Party: [Berlin Baustoffe](#)

Status

Overall Status: Open

Overall Block Status: Not Blocked

Incompletion Status: Incomplete

Net Sales Volume (YTD)

175.50 EUR

Net Value

155.50 EUR



General Information ▼

Items

Prices ▼

Billing Plan ▼

Texts

Status and Blocks

Output Items

Basic Data

Pricing Date:

28.04.2023



Price Elements

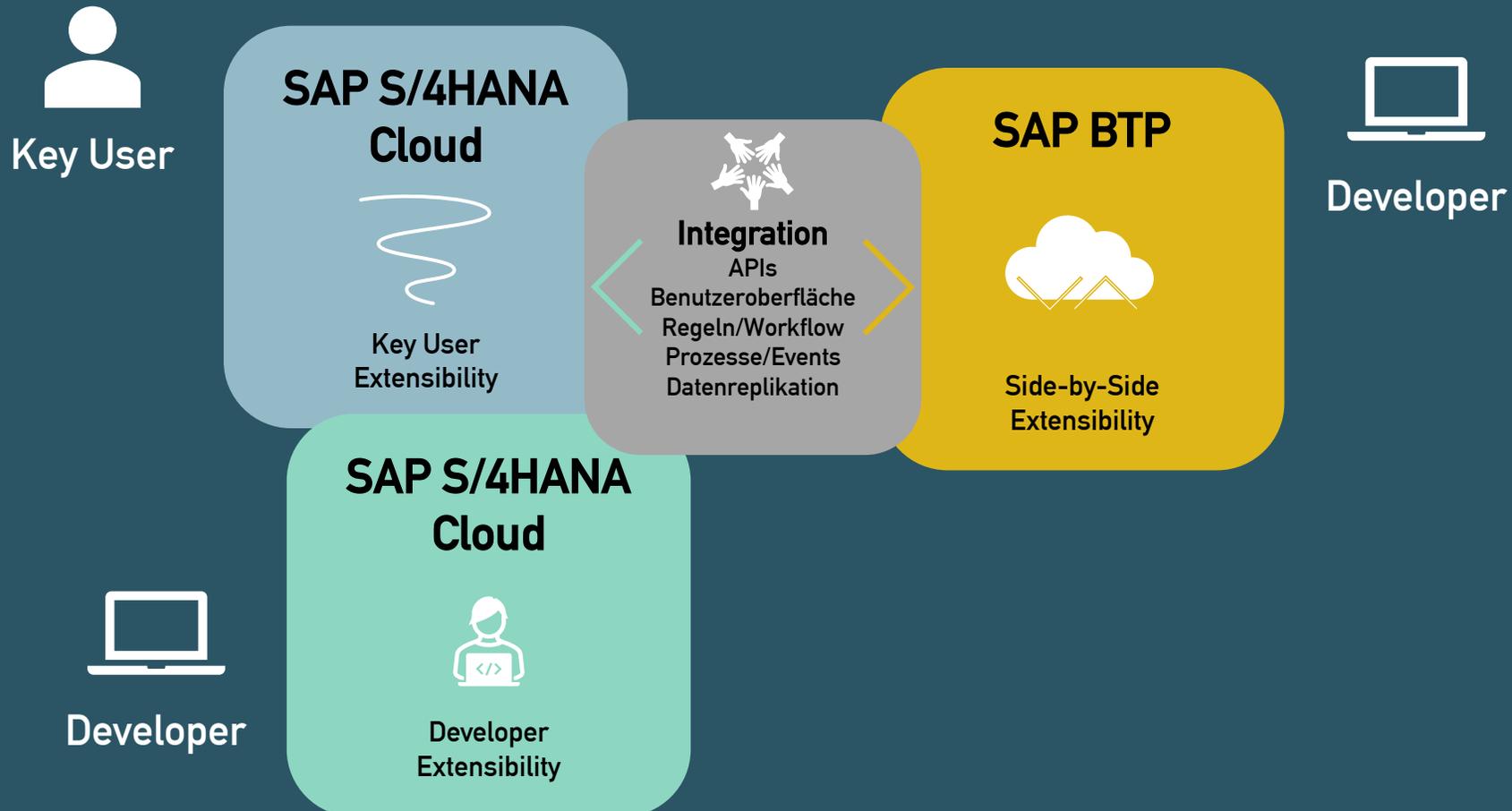
Standard ▼

All Price Elements ▼

<input type="checkbox"/>	Condition Type	Description	Condition Amount or Ratio	Pricing Unit	Condition Value	Statistical	Changed Manually
<input type="checkbox"/>	PPR0	Price			175.50	EUR	
<input type="checkbox"/>		Gross Value			175.50	EUR	
<input type="checkbox"/>	DRV1	Fixed Amount 1	-20.00	EUR	-20.00	EUR	Yes
<input type="checkbox"/>		Sum Surcharges/Discounts			-20.00	EUR	

3-Tier Extensibility Model for S/4 HANA On-Premise and Private Cloud

S/4HANA CLOUD EXTENSIBILITY MODEL



SIDE-BY-SIDE EXTENSIBILITY

SAP BTP

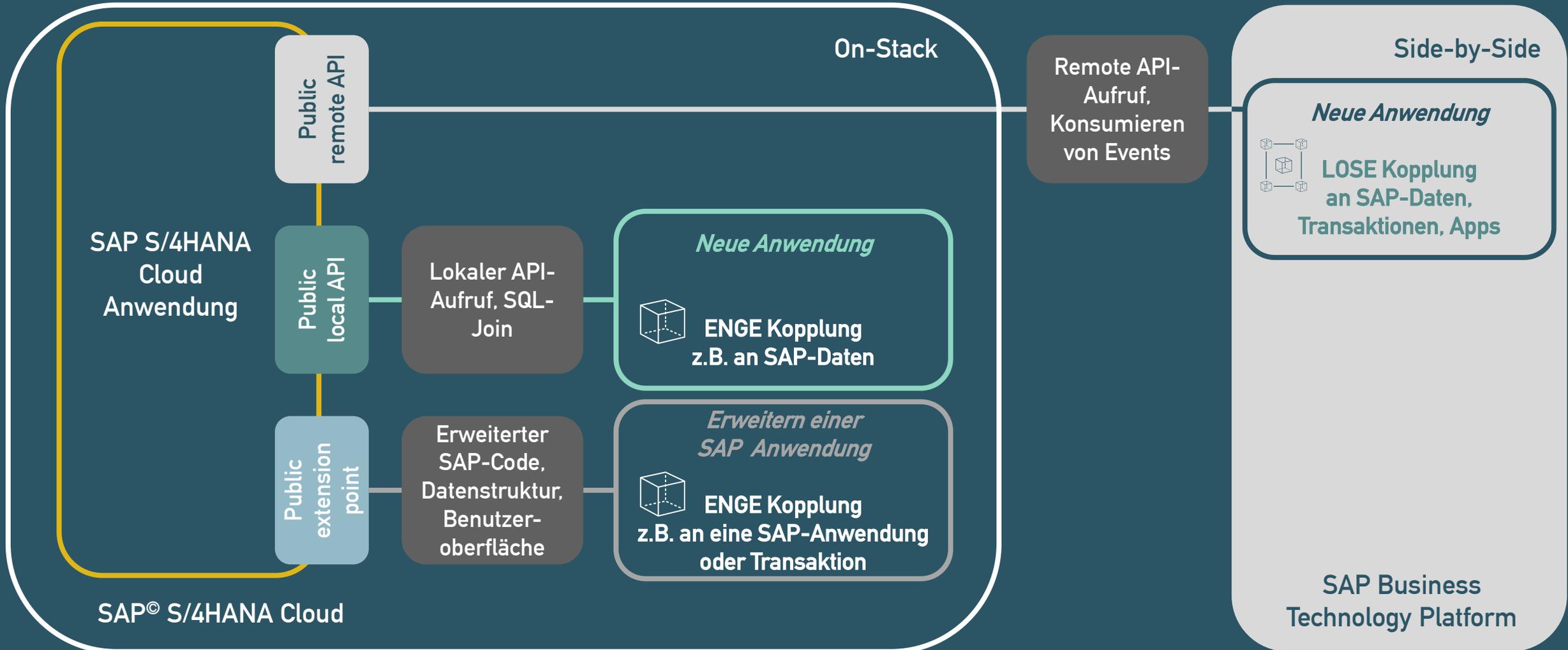


Side-by-Side
Extensibility

- ✓ Benutzerdefinierte Anwendung entwickeln
- ✓ User Integration
- ✓ Workflows und Regeln anlegen
- ✓ Event Integration
- ✓ Integration von KI-Services
- ✓ Daten Integration

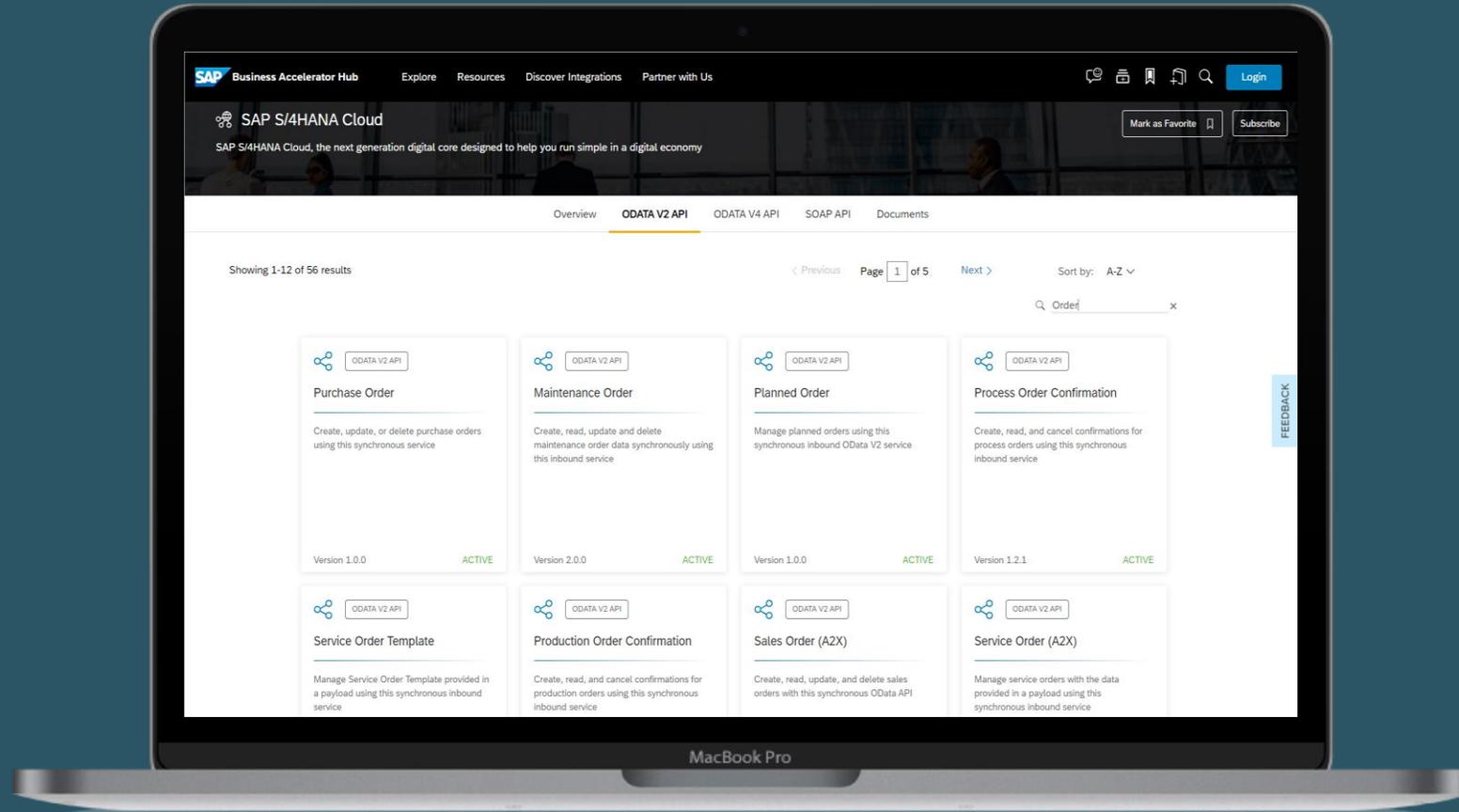
S/4HANA Cloud Extensibility

SIDE-BY-SIDE EXTENSIBILITY



Side-by-Side Extensibility

BUSINESS ACCELERATOR HUB



SAP S/4HANA Cloud

SAP S/4HANA Cloud, the next generation digital core designed to help you run simple in a digital economy

Mark as Favorite [Subscribe](#)

Overview **ODATA V2 API** ODATA V4 API SOAP API Documents

Showing 1-12 of 56 results

< Previous Page **1** of 5 Next > Sort by: A-Z v

Order| x

 ODATA V2 API

Purchase Order

Create, update, or delete purchase orders using this synchronous service

Version 1.0.0 **ACTIVE**

 ODATA V2 API

Maintenance Order

Create, read, update and delete maintenance order data synchronously using this inbound service

Version 2.0.0 **ACTIVE**

 ODATA V2 API

Planned Order

Manage planned orders using this synchronous inbound OData V2 service

Version 1.0.0 **ACTIVE**

 ODATA V2 API

Process Order Confirmation

Create, read, and cancel confirmations for process orders using this synchronous inbound service

Version 1.2.1 **ACTIVE**

 ODATA V2 API

Service Order Template

Manage Service Order Template provided in a payload using this synchronous inbound service

 ODATA V2 API

Production Order Confirmation

Create, read, and cancel confirmations for production orders using this synchronous inbound service

 ODATA V2 API

Sales Order (A2X)

Create, read, update, and delete sales orders with this synchronous OData API

 ODATA V2 API

Service Order (A2X)

Manage service orders with the data provided in a payload using this synchronous inbound service

FEEDBACK

Side-by-Side Extensibility

TECHNOLOGIEN AUF DER BUSINESS TECHNOLOGY PLATFORM

PROGRAMMIERMODELLE

Cloud Application Programming Model (CAP)

ABAP RESTful Application Programming Model (RAP)

SPRACHEN

Java, Java Script

ABAP

PLATTFORM

Cloud-Foundry/Kyma-Environment

ABAP-Environment

DATENBANKEN

HANA DB (im ABAP-Environment inkludiert)

PostgreSQL

SERVICES

Mobile Services

Translation Hub

Data Quality Services

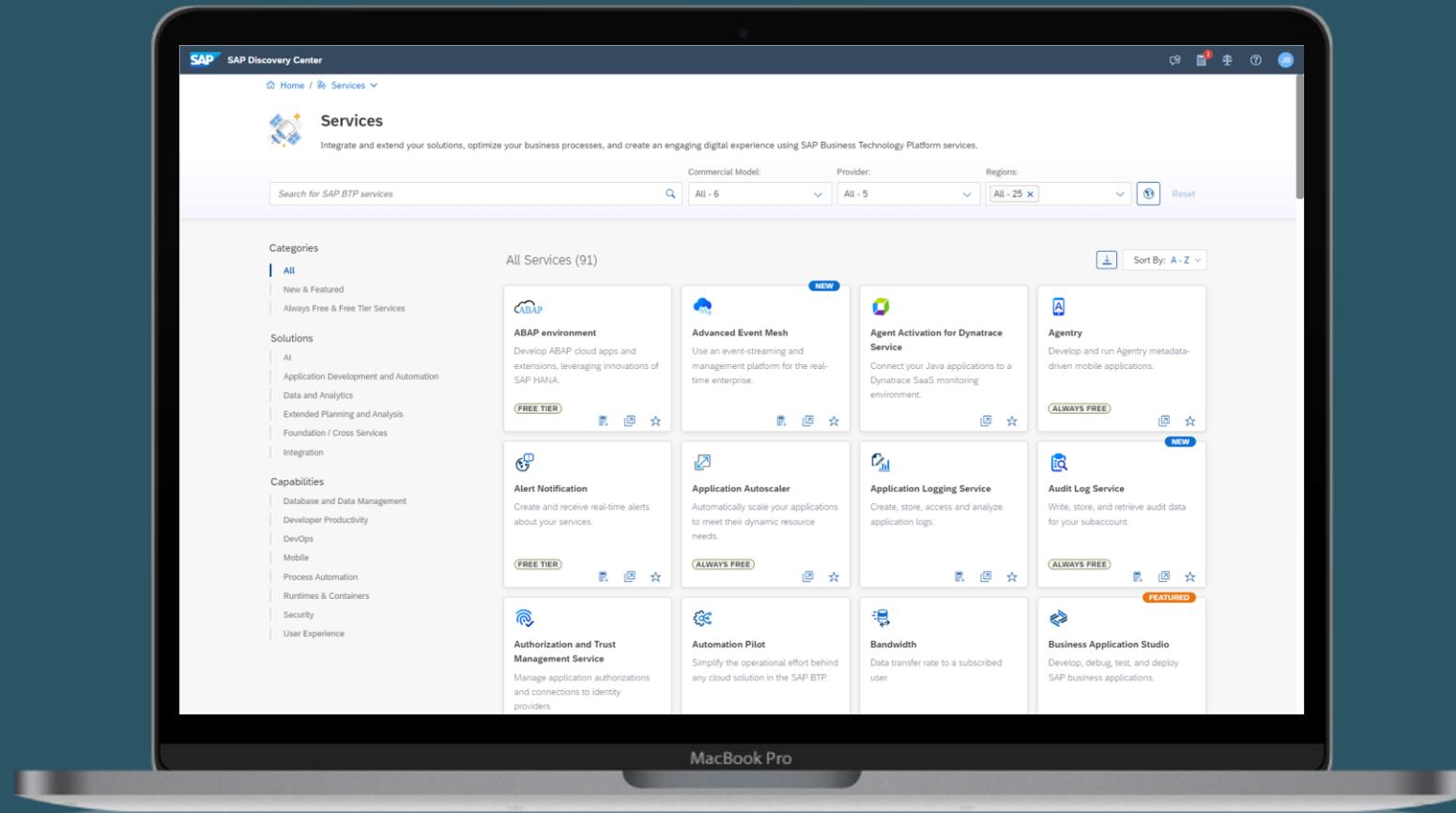
Document Information Extraction

Low-/No-Code Tools

SAP Datasphere

Side-by-Side Extensibility

DISCOVERY CENTER





Services

Integrate and extend your solutions, optimize your business processes, and create an engaging digital experience using SAP Business Technology Platform services.

Commercial Model: All - 6
Provider: All - 5
Regions: All - 25
Reset

Categories

- All
 - New & Featured
 - Always Free & Free Tier Services
- ## Solutions
- AI
 - Application Development and Automation
 - Data and Analytics
 - Extended Planning and Analysis
 - Foundation / Cross Services
 - Integration
- ## Capabilities
- Database and Data Management
 - Developer Productivity
 - DevOps
 - Mobile
 - Process Automation
 - Runtimes & Containers
 - Security
 - User Experience

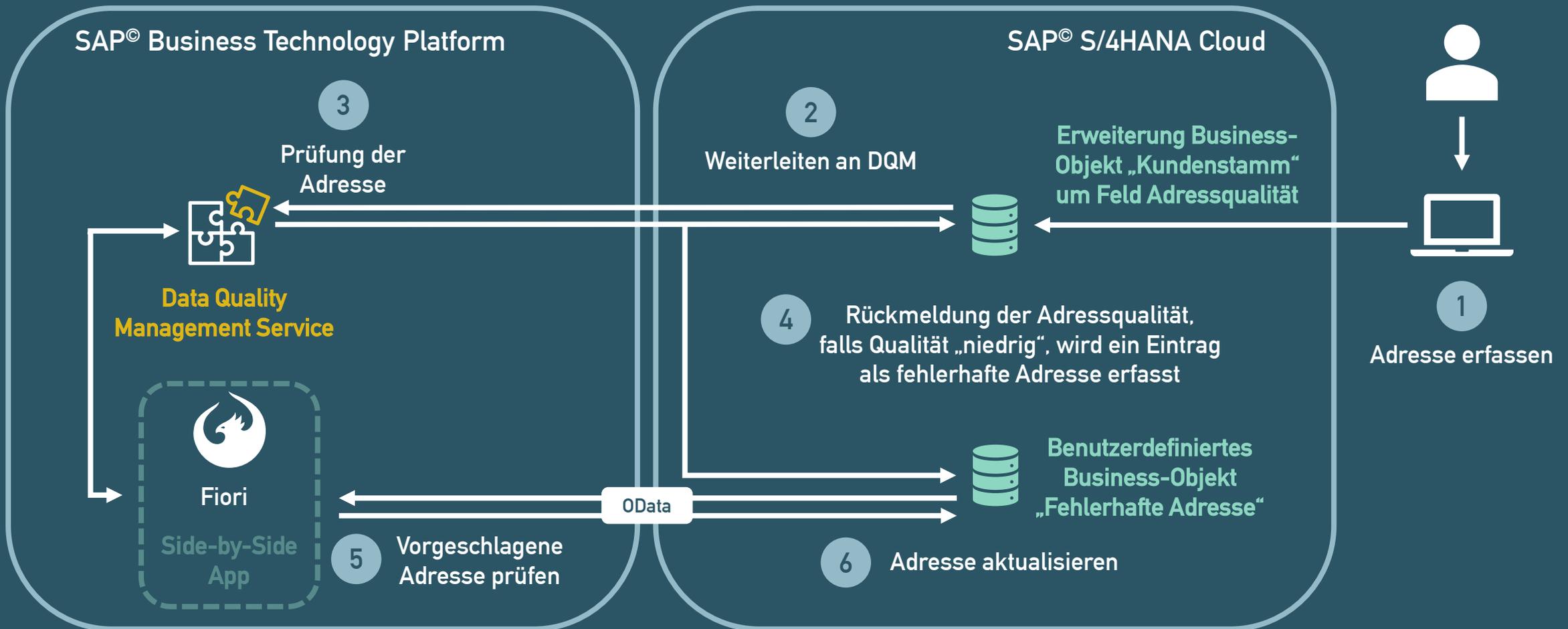
All Services (91)

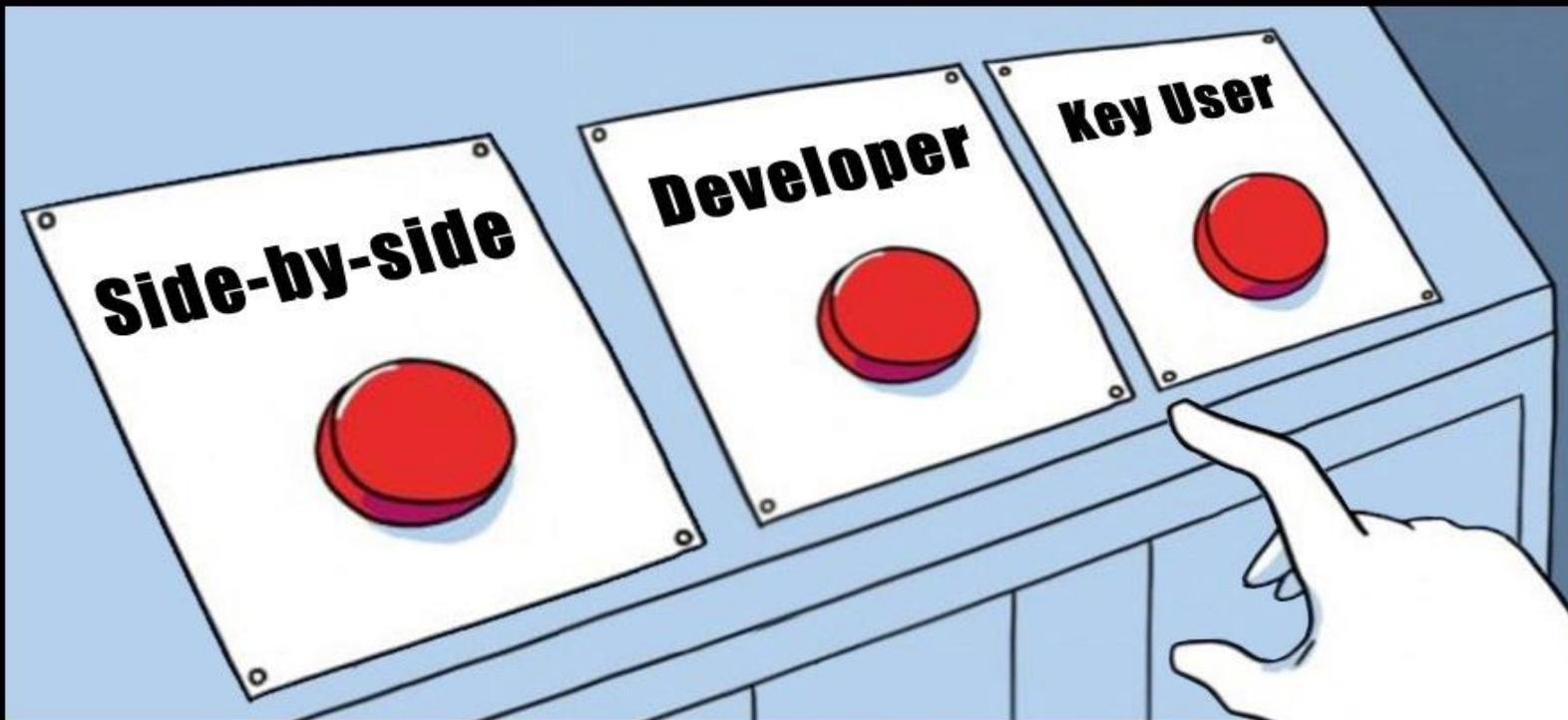
Sort By: A - Z

<p>ABAP environment Develop ABAP cloud apps and extensions, leveraging innovations of SAP HANA.</p> <p>FREE TIER</p>	<p>Advanced Event Mesh Use an event-streaming and management platform for the real-time enterprise.</p> <p>NEW</p>	<p>Agent Activation for Dynatrace Service Connect your Java applications to a Dynatrace SaaS monitoring environment.</p>	<p>Agency Develop and run Agency metadata-driven mobile applications.</p> <p>ALWAYS FREE</p>
<p>Alert Notification Create and receive real-time alerts about your services.</p> <p>FREE TIER</p>	<p>Application Autoscaler Automatically scale your applications to meet their dynamic resource needs.</p> <p>ALWAYS FREE</p>	<p>Application Logging Service Create, store, access and analyze application logs.</p>	<p>Audit Log Service Write, store, and retrieve audit data for your subaccount.</p> <p>ALWAYS FREE</p> <p>NEW</p>
<p>Authorization and Trust Management Service Manage application authorizations and connections to identity providers.</p>	<p>Automation Pilot Simplify the operational effort behind any cloud solution in the SAP BTP.</p>	<p>Bandwidth Data transfer rate to a subscribed user.</p>	<p>Business Application Studio Develop, debug, test, and deploy SAP business applications.</p> <p>FEATURED</p>

Side-by-Side Extensibility

ADRESS-VALIDIERUNG MIT DATA QUALITY MANAGEMENT



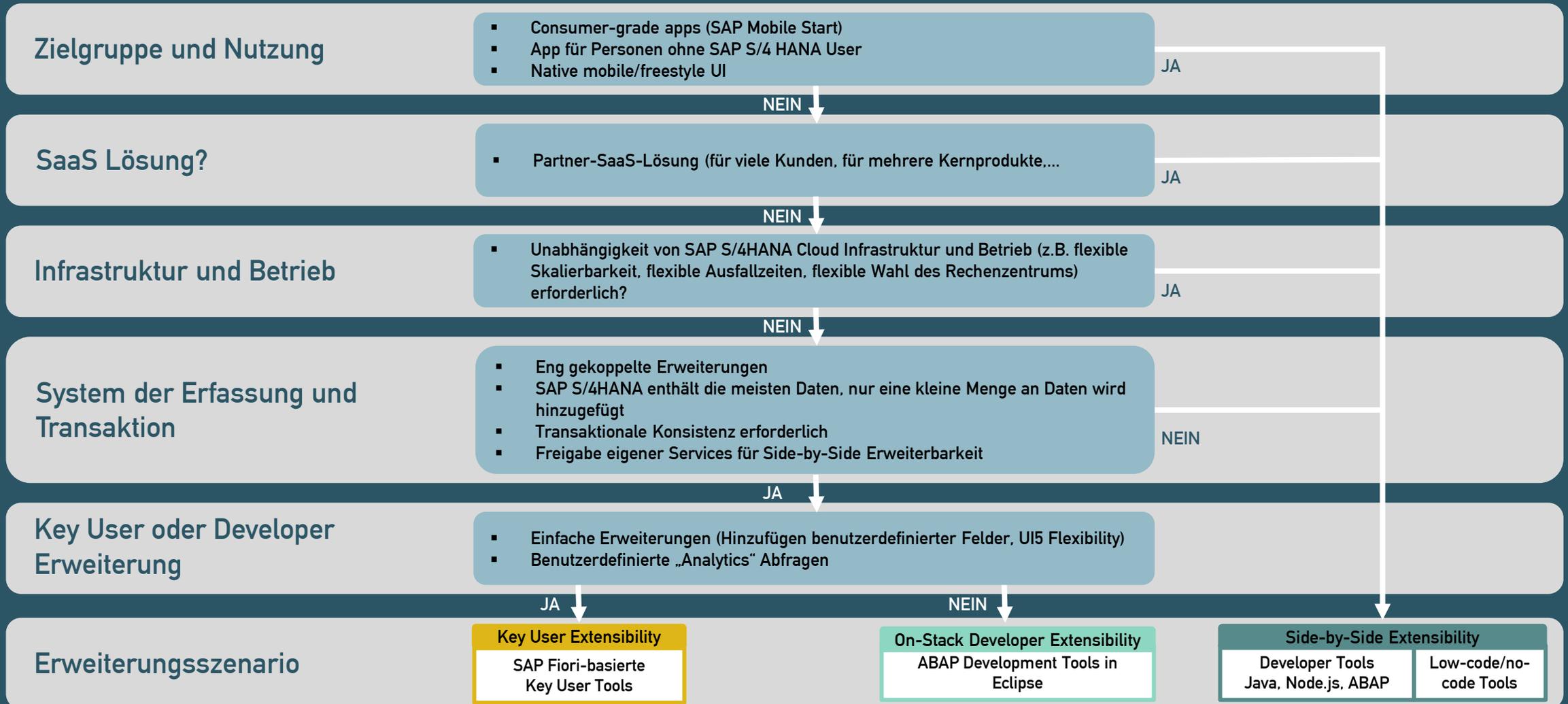


ZUSAMMENFASSUNG DER ERWEITERUNGSOPTIONEN

	KEY USER EXTENSIBILITY	DEVELOPER EXTENSIBILITY	SIDE-BY-SIDE EXTENSIBILITY
Szenario	Kleinere low/no-code Anpassungen und Erweiterungen	Eng gekoppelte, komplexere Erweiterungen und Apps	Lose gekoppelte Erweiterungen und Apps
Ziel-Umgebung	Vollständig in den SAP S/4 HANA Cloud Stack integriert	Vollständig in den SAP S/4 HANA Cloud Stack integriert	SAP Business Technology Platform
Anwendungsfälle	Anpassung der Benutzeroberfläche, Hinzufügen benutzerdefinierter <ul style="list-style-type: none"> ▪ Felder ▪ Geschäftsobjekte 	Erweiterungen: <ul style="list-style-type: none"> ▪ mit häufigem/komplexem SQL-Datenzugriff ▪ in derselben LUW wie SAP-Anwendung <ul style="list-style-type: none"> ▪ Custom Remote-API 	Apps/Erweiterungen: <ul style="list-style-type: none"> ▪ für Anwender ohne ERP-User ▪ mit intelligenten BTP-Services
Zielgruppe	Key Users (admins)	ABAP-Entwickler	Entwickler (Java,JS,ABAP)
Freigegebene Objekttypen	BAAls, CDS views	BAAls, Klassen, Interfaces, CDS-Views, Berechtigungsobjekte, Behavior definitions	BAPI's, Idocs, Odata und SOAP API's, Events
Vorteile	Vollständig verwaltet und integriert in SAP S/4 HANA Cloud, keine Entwicklungskennnisse erforderlich	Kundenspezifische ABAP-Entwicklung direkt auf dem SAP S/4 HANA Cloud Stack; Nutzung und Erweiterung freigegebener SAP-Objekte; umfangreicher Vorrat an Cloud-Erweiterungspunkten	Entkoppelte Erweiterungen unabhängig von SAP S/4 HANA Cloud Betrieb und Lifecycle Management

Entscheidungskriterien

WIE FINDET MAN DIE RICHTIGE ERWEITERUNG



WEITERE ASPEKTE

- VERFÜGBARE PERSONELLE RESSOURCEN:
ABAP, JS, Fiori oder Java Entwickler verfügbar
- STRATEGISCHE AUSRICHTUNG:
Sind mehrere Apps geplant? ABAP-Environment kann bei vielen Anwendungen durchaus günstiger sein als Cloud-Foundry
- KEIN S/4 HANA:
Mit Side-by-Side Entwicklungen Innovation in ECC-Systeme bringen

Kostenstruktur

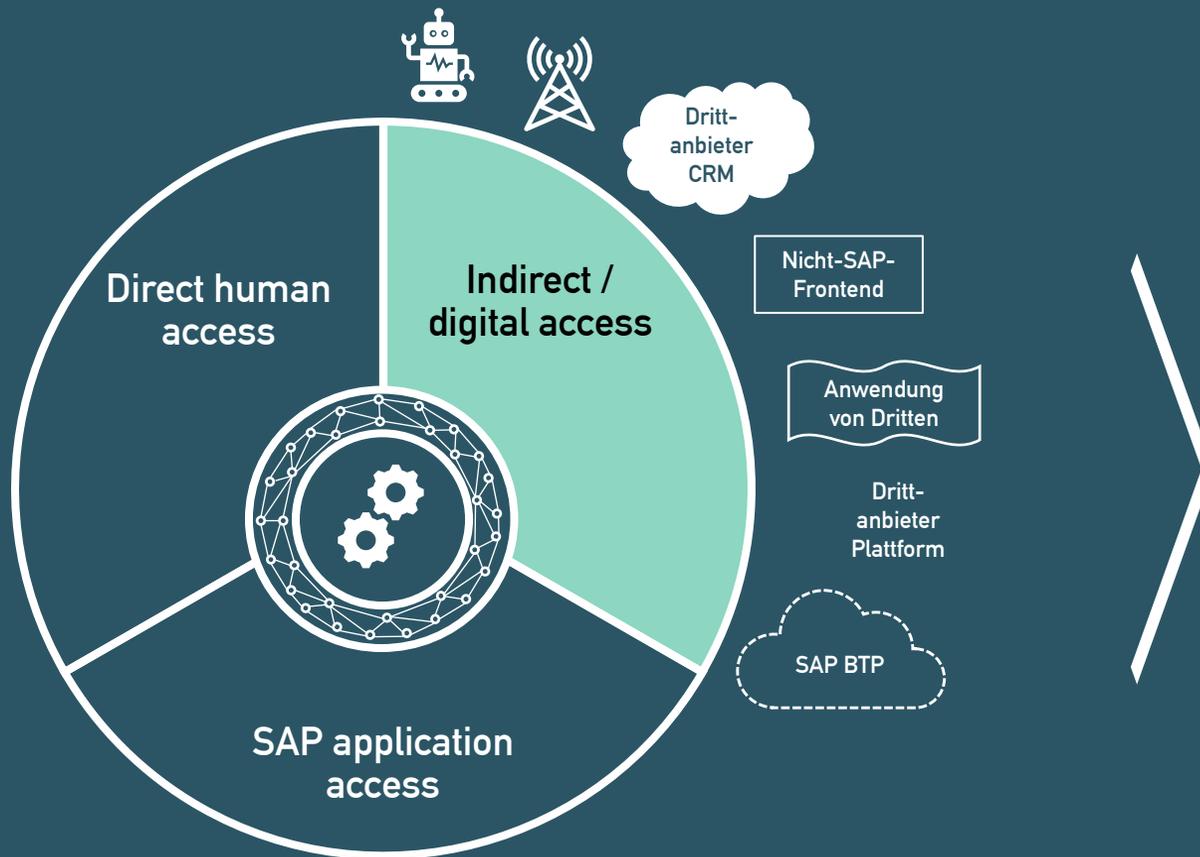
KOSTEN JE LAUFZEITUMGEBUNG

	ABAP	Java Script/Java/Andere on Kyma	Java Script/Java/Andere on Cloud Foundry
Business Application Studio	24,00 € pro User / Monat	24,00 € pro User / Monat	24,00 € pro User / Monat
Environment	2.205,33 € / Monat	1.116,00 € / Monat 32 GB Disk / 16 GB Memory	140,00 € / Monat 2GB Disk / 2GB Memory
PostgreSQL		20,00 € / Monat 5 GB Disk	20,00 € / Monat 5 GB Disk
HANA DB	In ABAP-Environment enthalten 120 GB Disk / 32 GB Memory	705,75 € / Monat 120 GB Disk / 32 GB Memory	
Gesamt	2.229,33 € / Monat	1.140,00 – 1.845,00 € / Monat	184,00 € / Monat

Hierbei handelt es sich um Listenpreise aus dem SAP-Discovery-Center. Preise können aufgrund von Paketen/Bundles oder anderen Rabattierungen abweichen.

Lizenzmodelle

SAP DIGITAL ACCESS MODEL



Belegarten

- Verkaufsbeleg (gezählt auf Positionsebene)
- Rechnungsbeleg (gezählt auf Positionsebene)
- Einkaufsbeleg (gezählt auf Positionsebene)
- Wartungs- und Instandhaltungsbeleg
- Fertigungsbeleg
- Qualitätsmanagement-Beleg
- Zeitmanagement-Beleg

1.0x

- Finanzbeleg (gezählt auf Positionsebene)
- Materialbeleg (gezählt auf Positionsebene)

0.2x

Lizenzberechnung

Die Lizenzberechnung basiert auf dem ersten erstellten Dokument. Gelesene, aktualisierte oder gelöschte Dokumente werden nicht gezählt.

Fit to Standard, but do it your own way – Kundenentwicklungen in der SAP Cloud

NOCH FRAGEN?



**4 process**
OPTIMIERTE SYSTEME

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Vielen Dank!

