



# Simplify App Development using SAP's Extension Suite Powering the Intelligent Enterprise

Speaker's Name, SAP  
Month 00, 2021

# What We'll Cover

Introduction to SAP Extension Suite

Motivation, main components in scope, extension approaches for S/4HANA

Customer showcase – Clean ERP using Extension Suite

Best Practices and Lessons Learned

Product showcase – Overview, UX and expected benefits

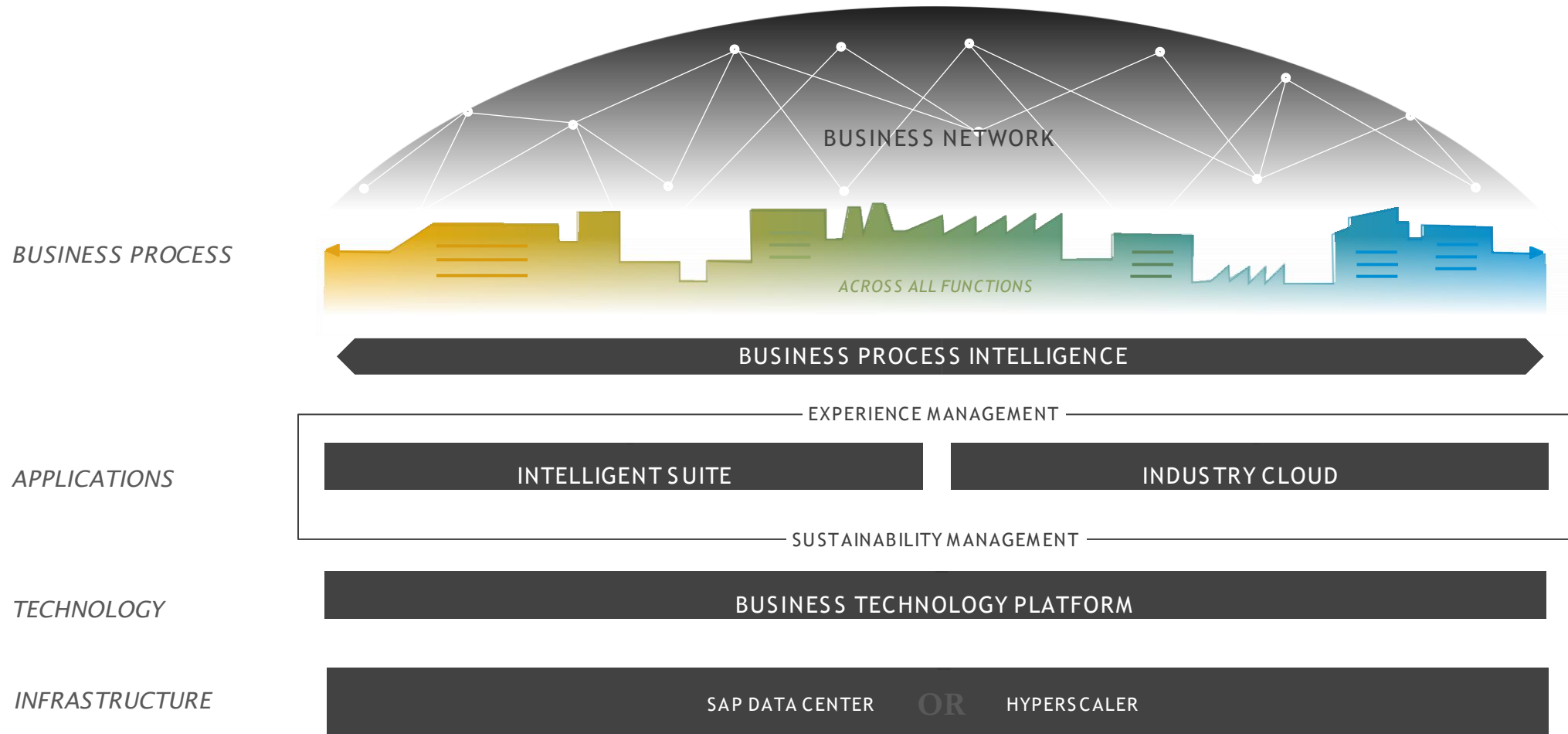
Q/A

# Introduction to **SAP Extension Suite**



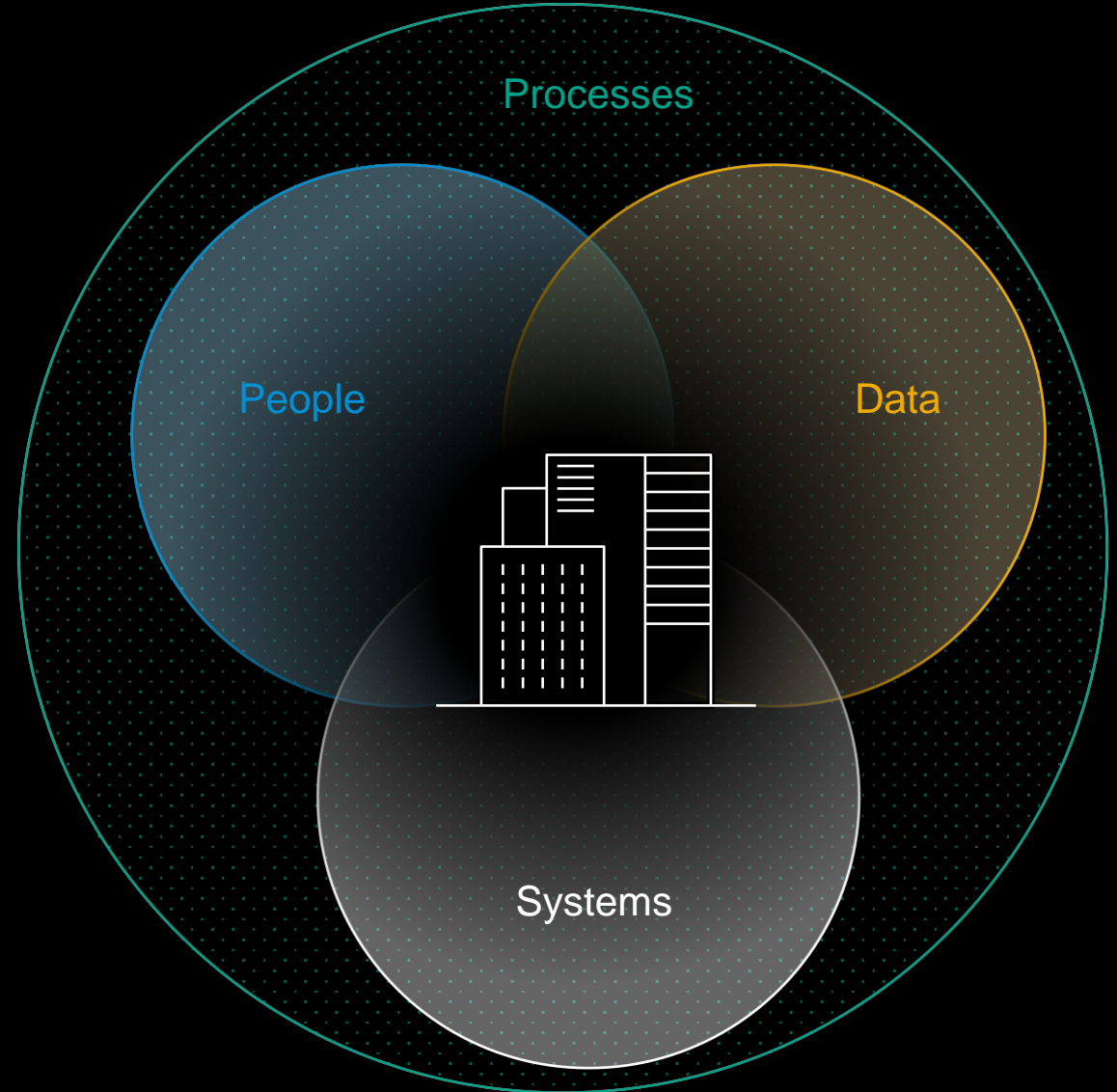
# INTELLIGENT ENTERPRISE

## Evolved Vision.

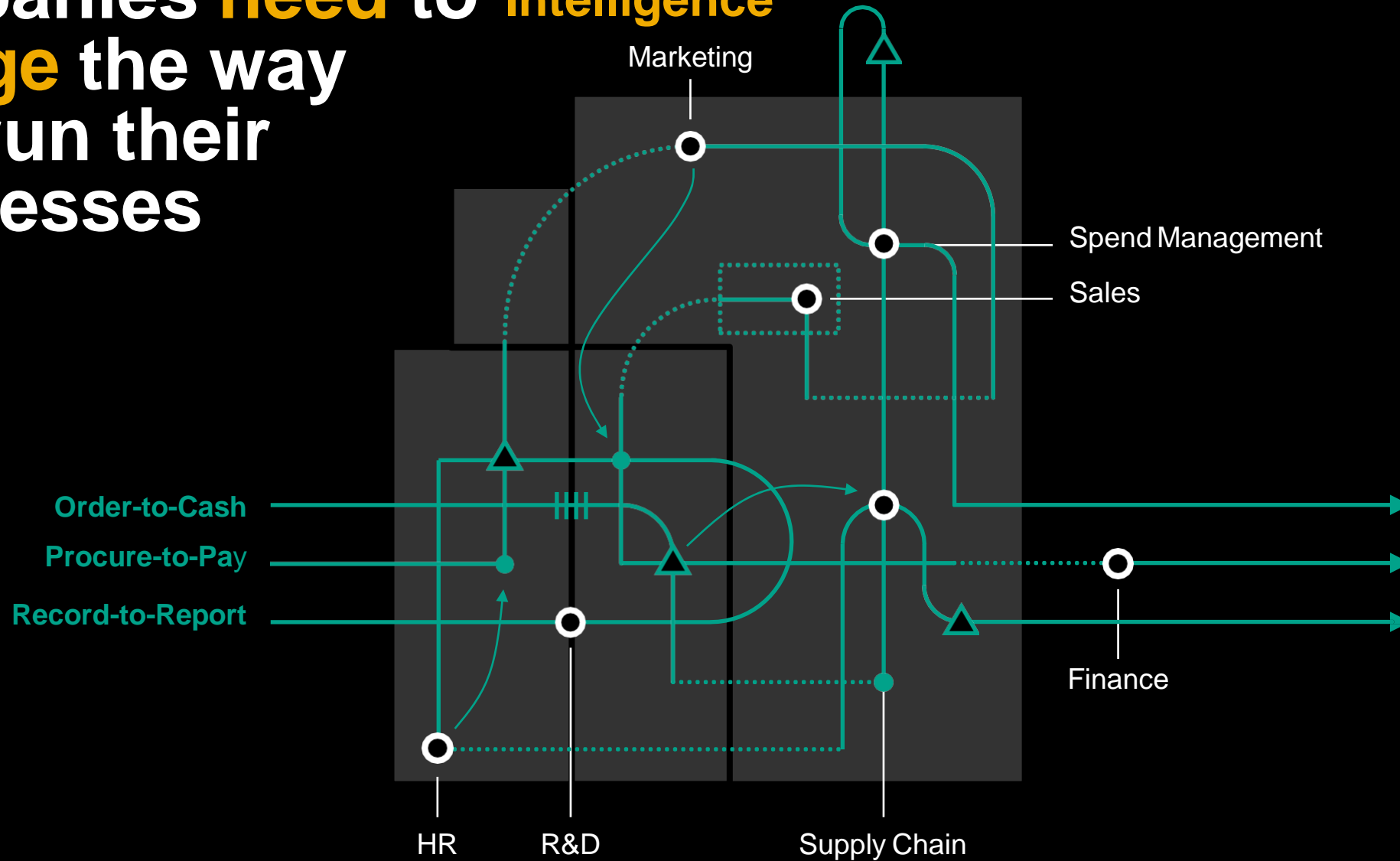




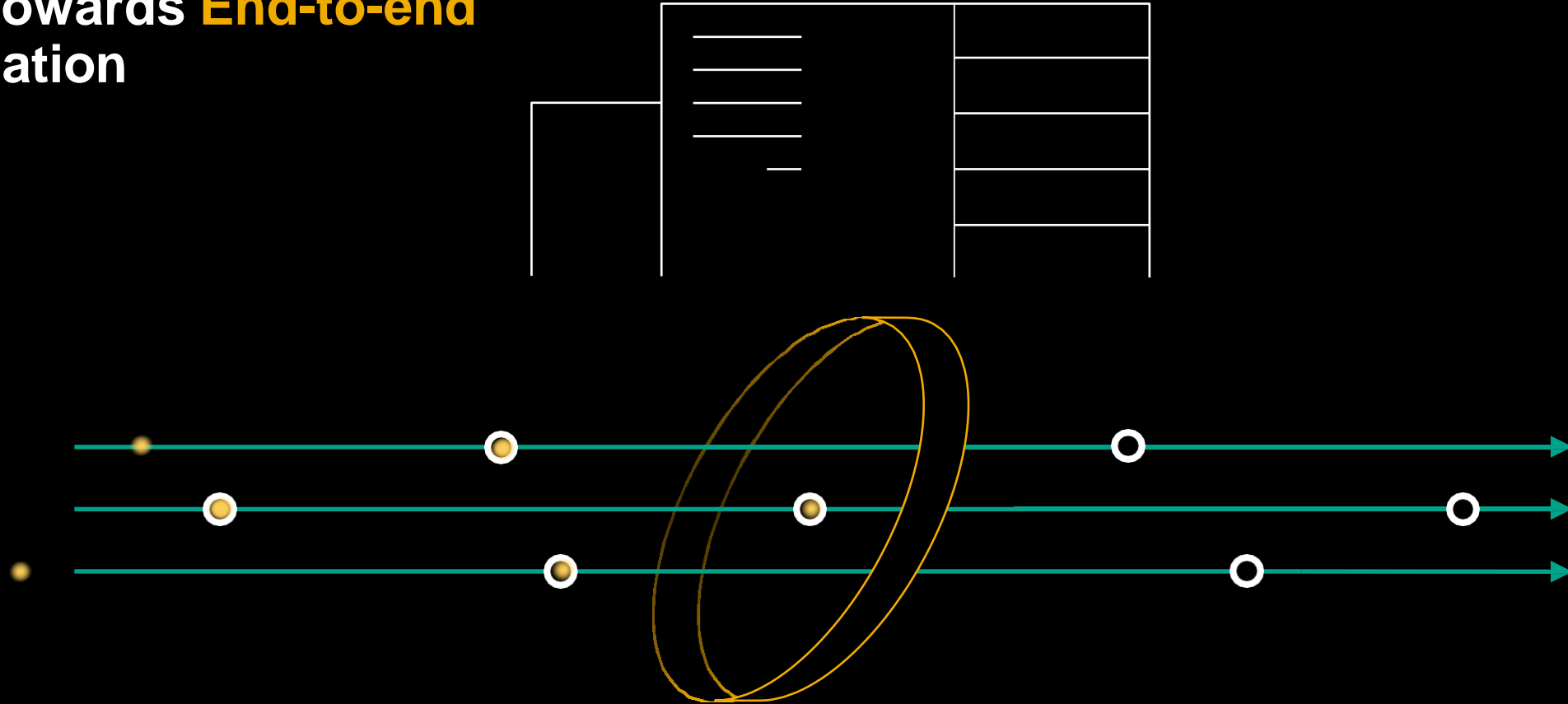
# **Focus** transformation and improvement holistically on **Business Processes**



# Companies **need** to **Intelligence** **change** the way they run their businesses

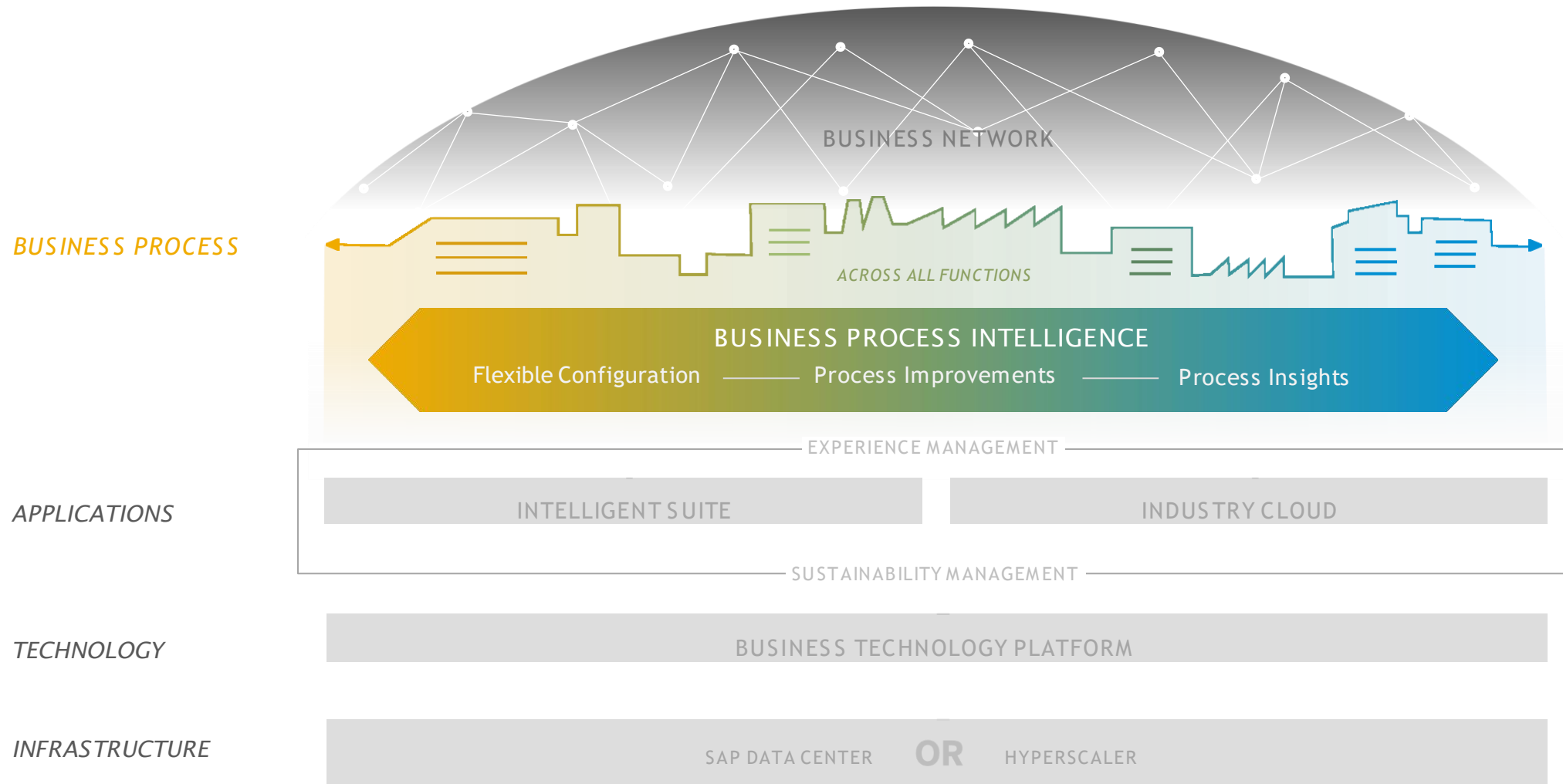


# Understanding **Processes** and seamlessly transform them towards **End-to-end** automation



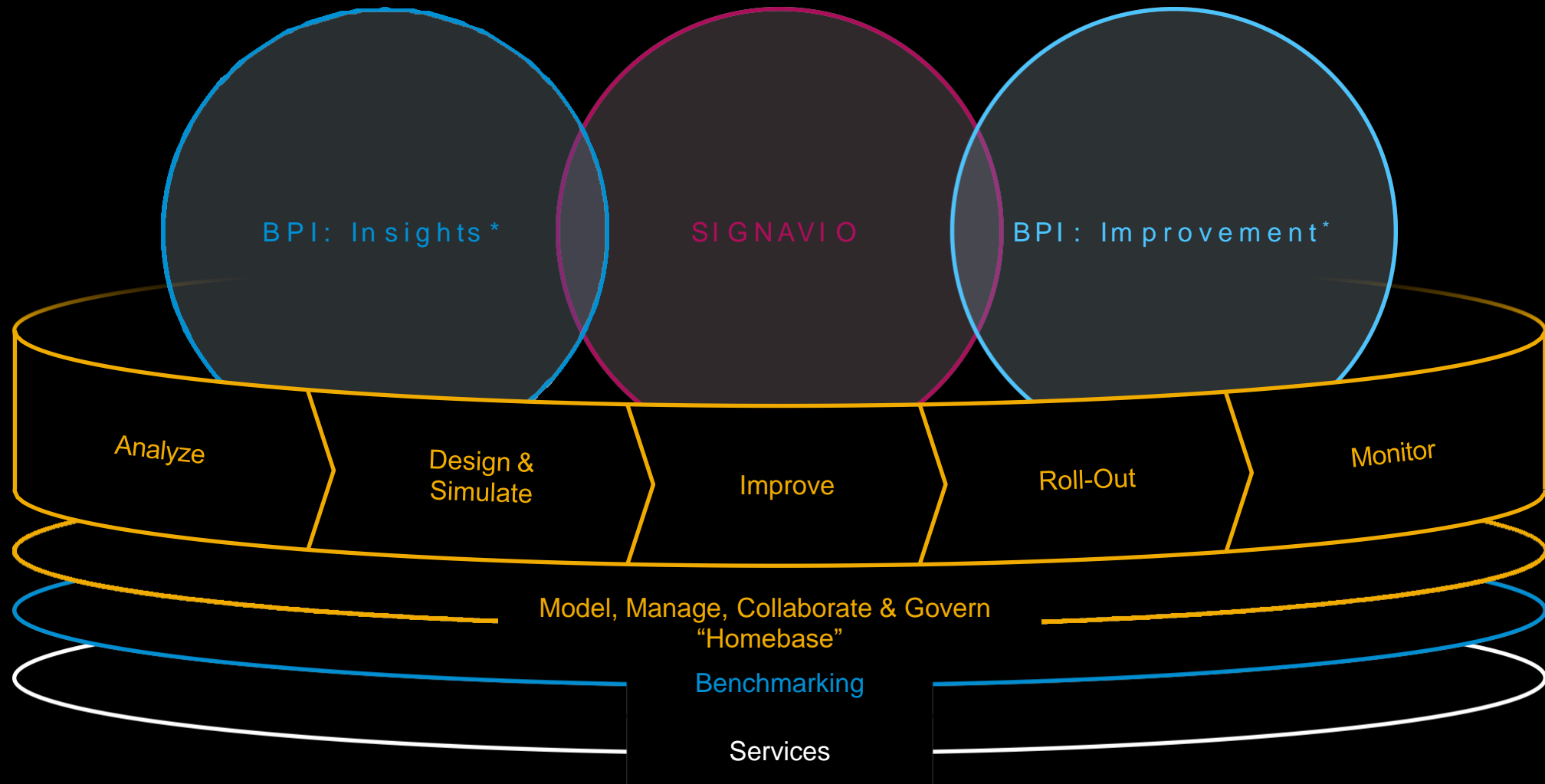
# KEY ELEMENT

## Business Process Intelligence.



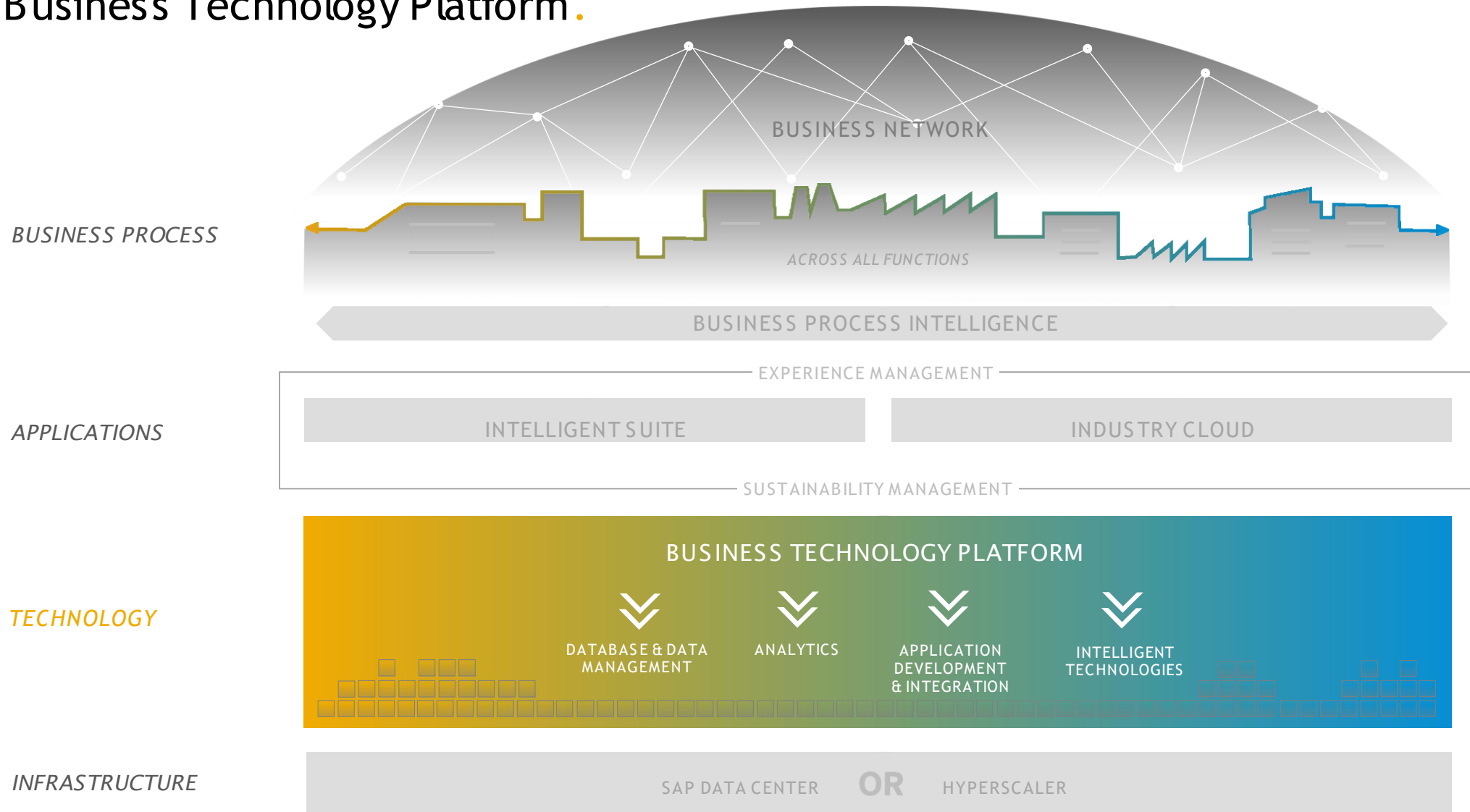


**Business process intelligence from SAP enables organizations to continuously understand, innovate and transform all of their business processes.**



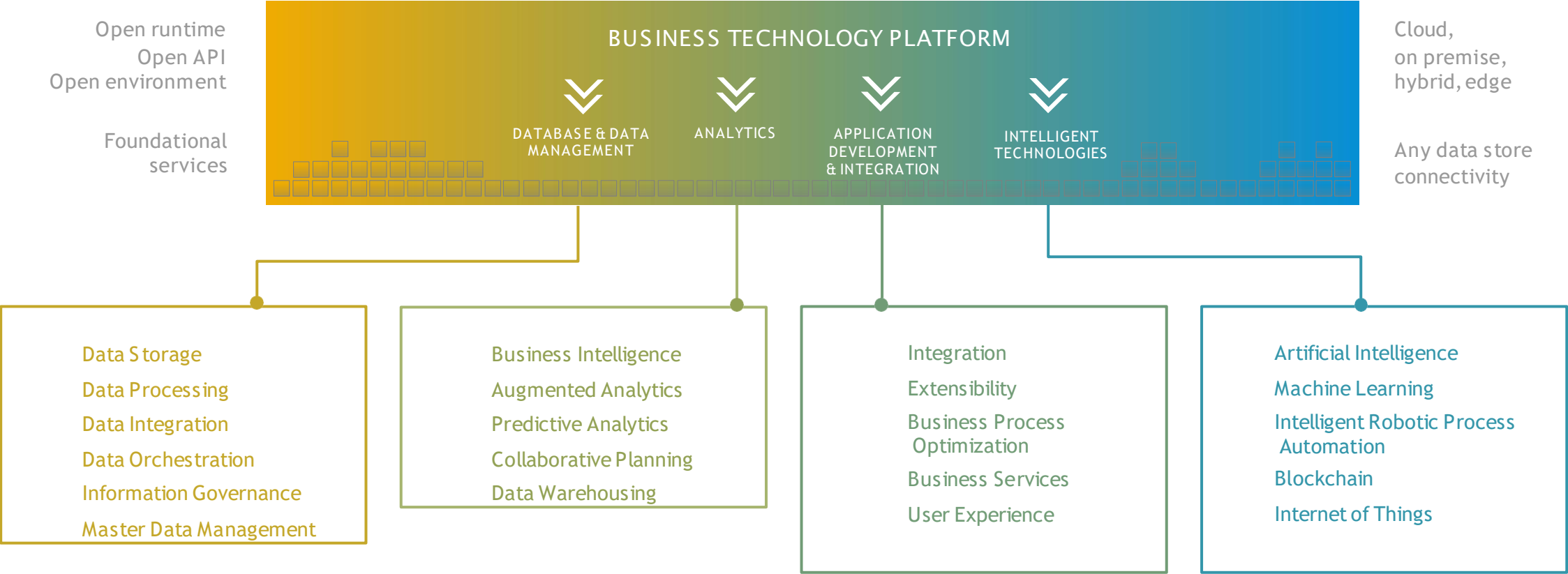
# KEY ELEMENT

## Business Technology Platform.



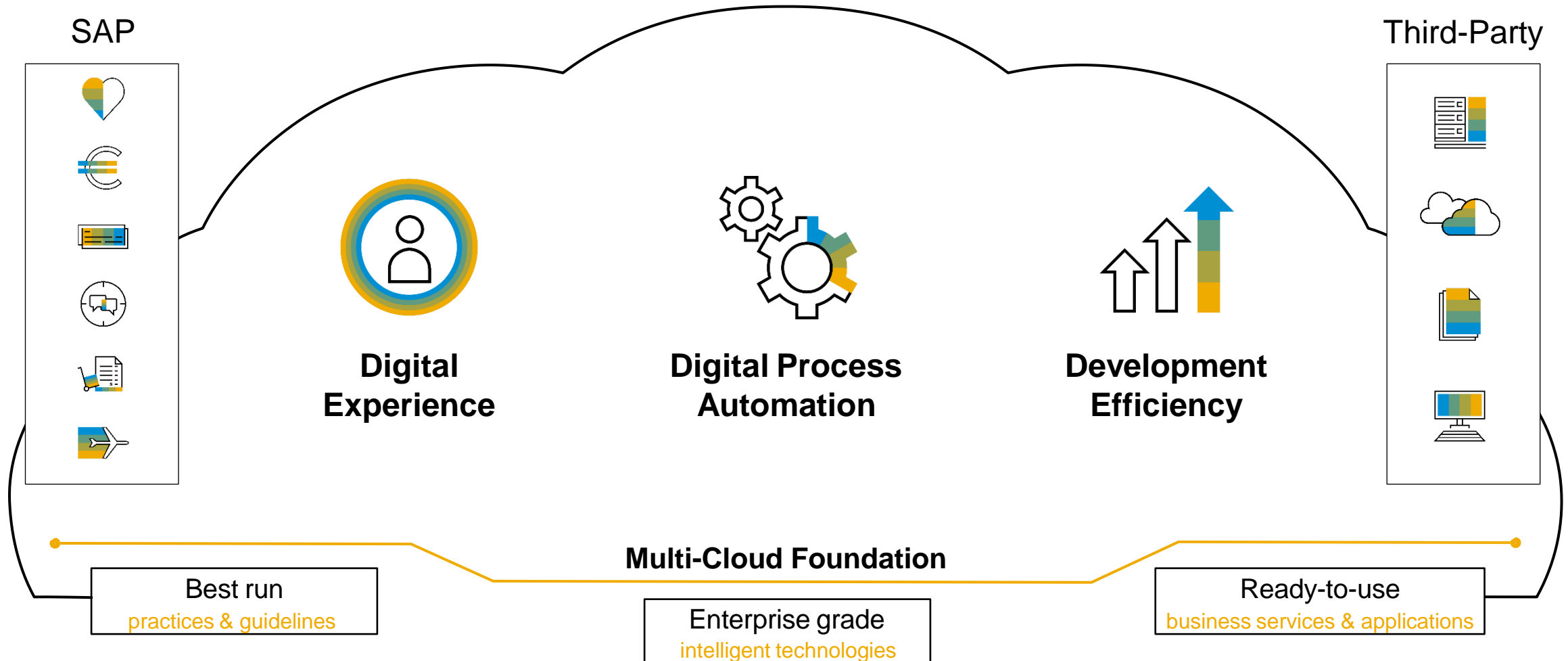
# DEEP DIVE

## Business Technology Platform.



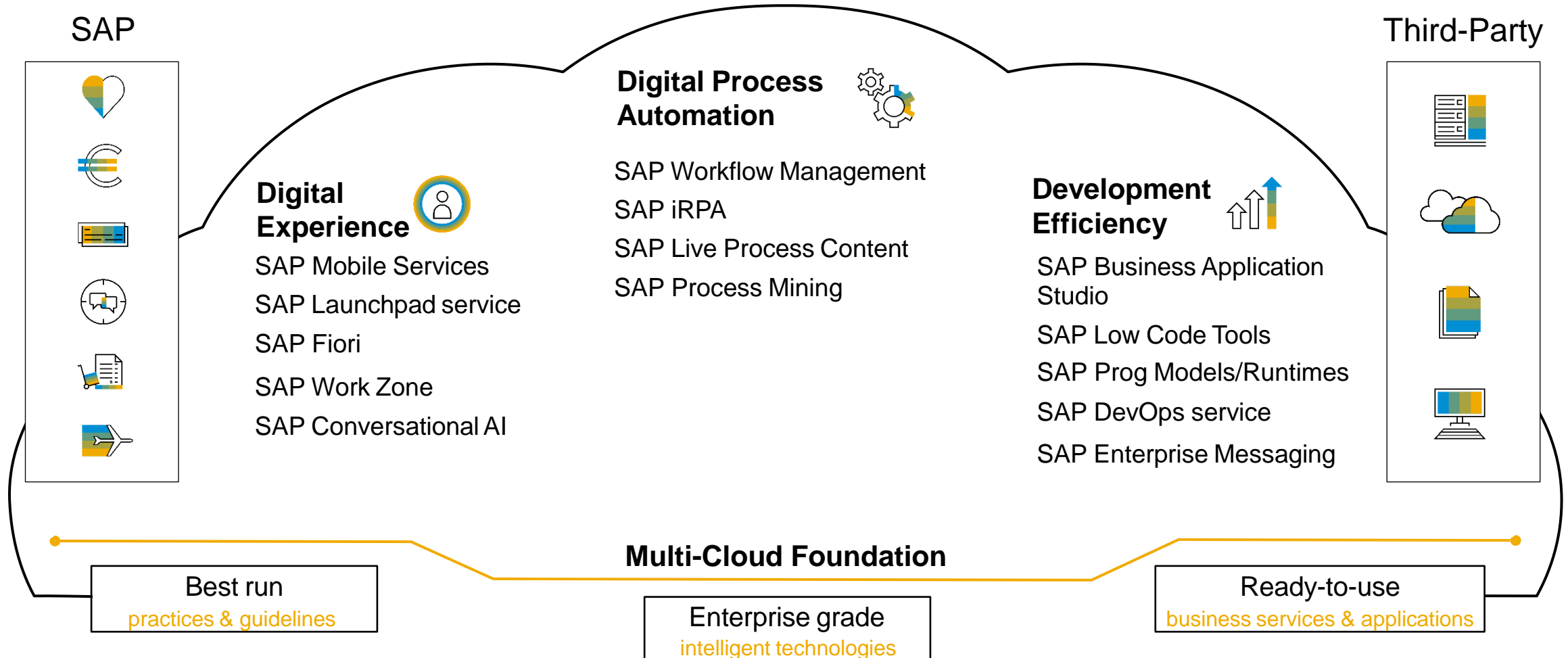
# SAP Extension Suite

Simplify development of your application extensions



# SAP Extension Suite

Simplify development of your application extensions





# The Business Technology Platform Advantage



## Pre-Built Content

- 1,800+ prebuilt integration packs
- 160+ connectors to SAP and third-party systems
- Over 100 pre-built Analytics content packages
- Industry & LOB content and process workflows



## Cloud Native Extensions

- Extend S/4HANA to new users
- Modify or add new functionality quickly
- Extensions upgrade seamlessly
- Minimizes maintenance costs



## Partner Ecosystem

- Access to 15,000 partners across 25 industries
- Deliver digital content and business workflows
- Implement best practices

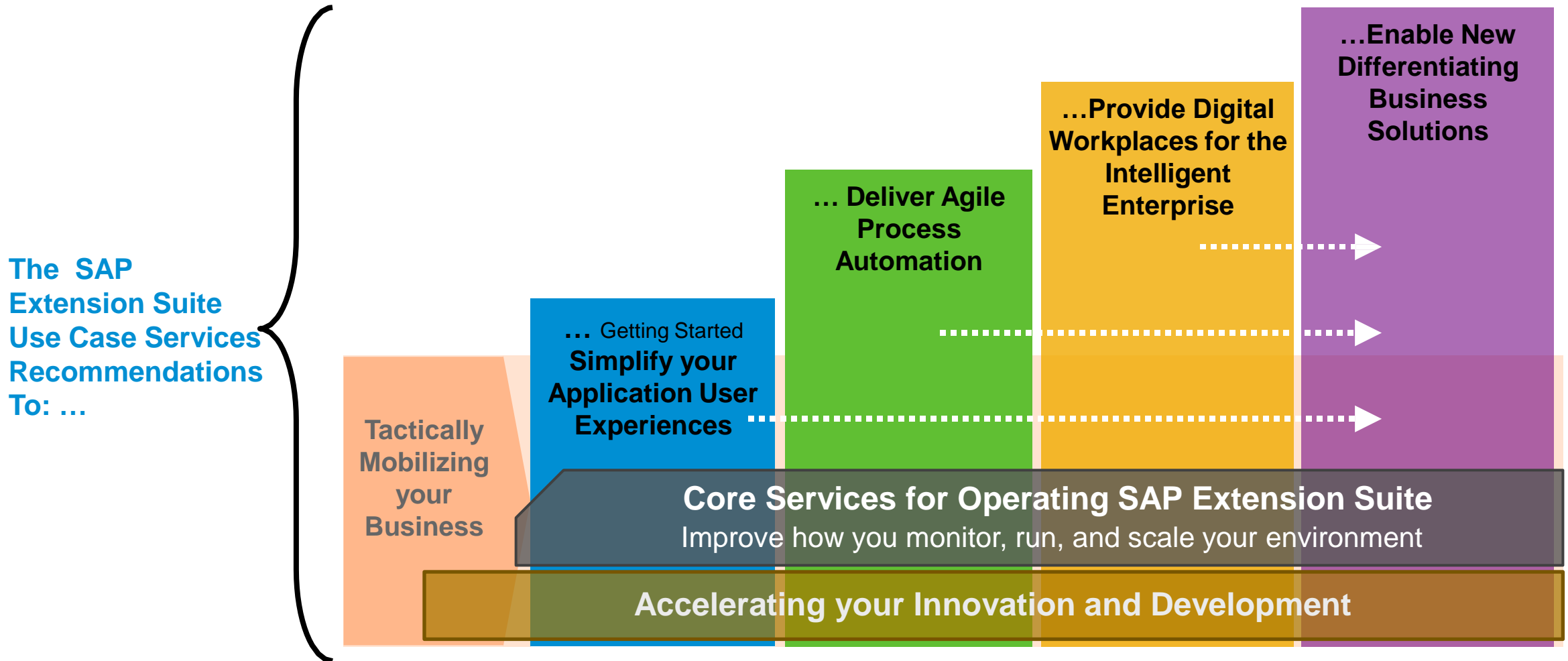


## Minimal Risk

- Credits to pilot for free
- Consumption based pricing

# SAP Extension Suite use case “Recommended Services”

An easy way to start your transformational journey with the Extension Suite

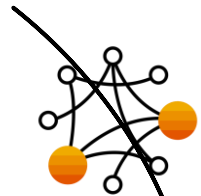


\* Additional Use Cases will / may be added over time

# Benefits of Extending S/4HANA with SAP BTP

## Business Perspective

Competitive advantage with custom specific innovations of business processes



Differentiate with extensions of business processes and benefit from custom/partner IP



Insight to action: Contextual insights at the point of decision



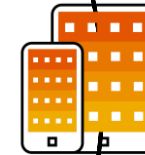
Intelligence: Beyond automation, to predictive suggestion

## IT Perspective

De-coupling of extensions and standard tight integration with SAP & third-party apps



Agility of extensions based on de-coupling from standard



High development productivity and business user empowerment



Renovate existing custom & partner apps (z-code)

**SAP S/4HANA**



**SAP Business  
Technology Platform**



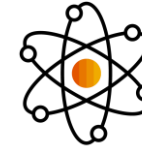
**Accelerate and  
simplify migration**

Migrate and maintain  
relevant data, deliver trusted  
master data, and keep the  
core clean by decoupling  
custom code



**Optimize and  
automate business  
processes**

Integrate, optimize, and  
automate processes with  
1,800+ pre-built integrations  
and comprehensive tools

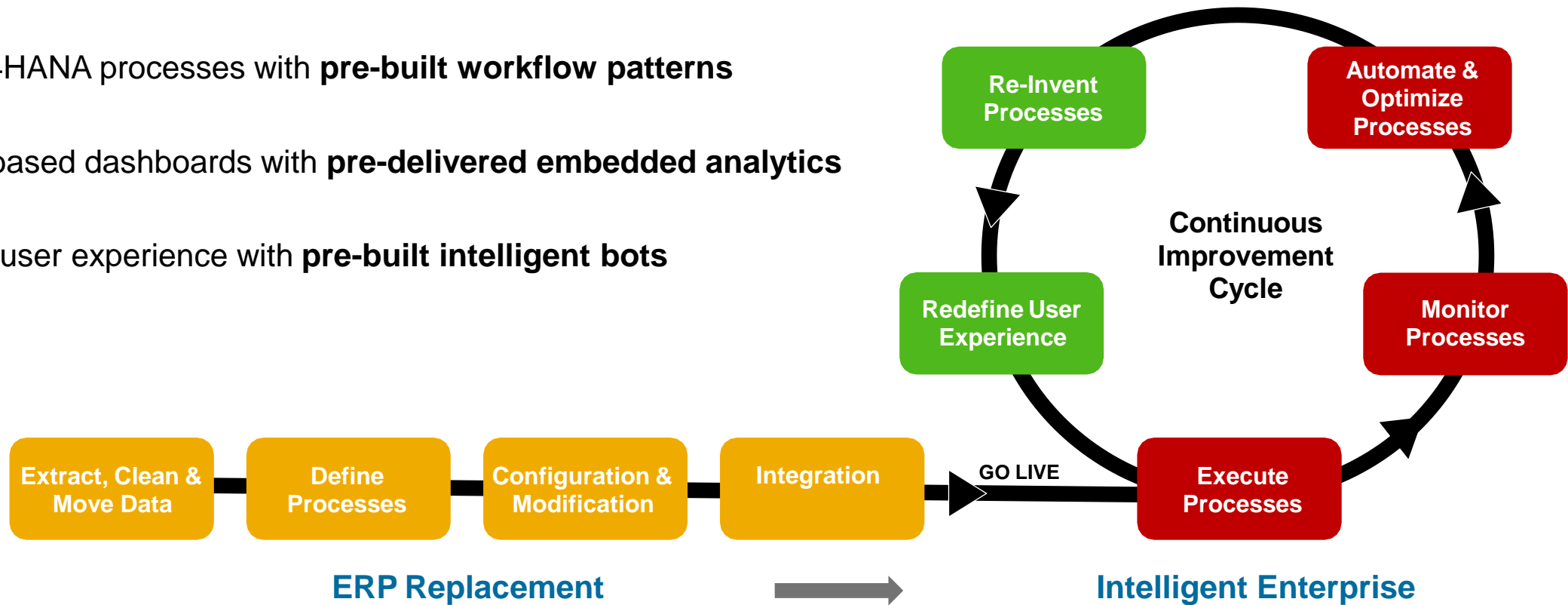


**Differentiate to gain  
competitive advantage**

High value Analytics and  
Intelligent Technologies are  
embedded in SAP S/4HANA to  
accelerate customer value  
realization

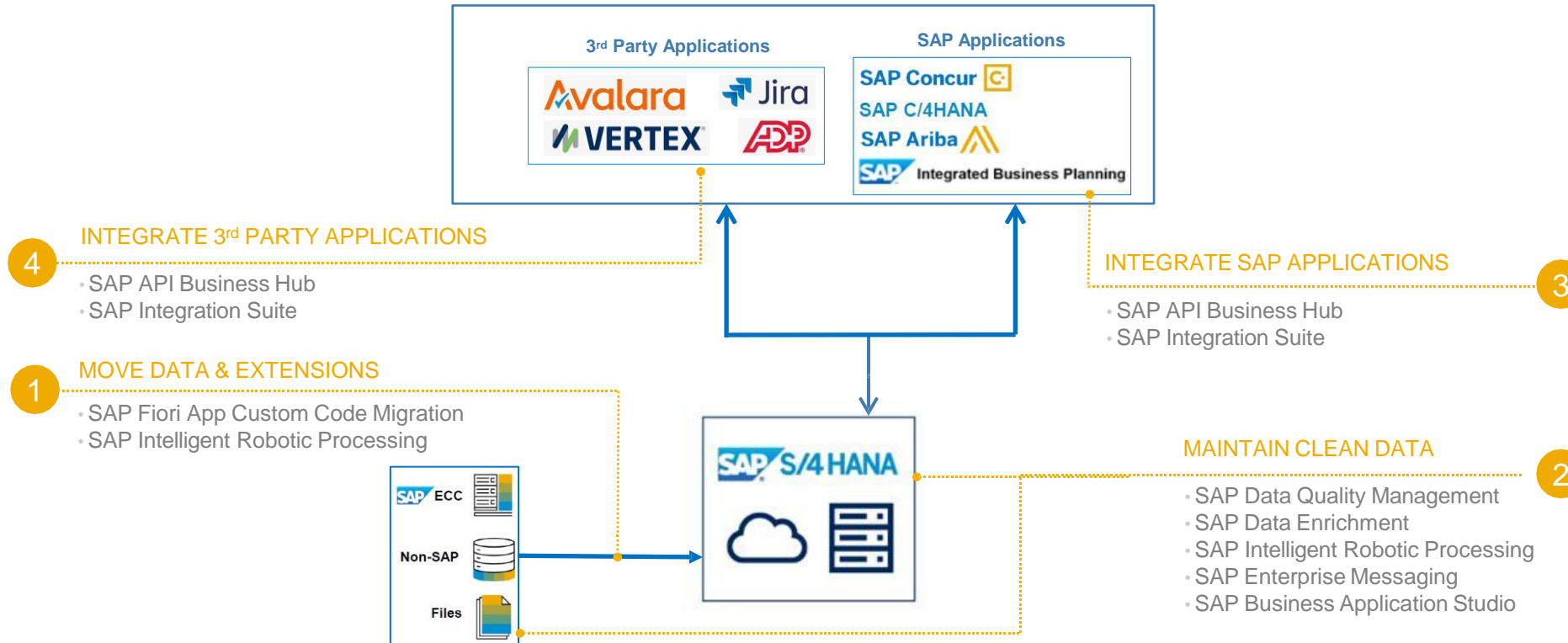
# BTP Is Purpose Built for the S/4HANA Journey

- Convert data & code with **pre-built conversion services**
- Integrate to SAP & 3<sup>rd</sup> Party Systems with **pre-defined integration flows**
- Automate S/4HANA processes with **pre-built workflow patterns**
- Create Role based dashboards with **pre-delivered embedded analytics**
- Redefine the user experience with **pre-built intelligent bots**





# BTP *Accelerates* Move to S/4HANA



Visit [Discovery Center](#) for more use cases

# Explore BTP *Acceleration* Use Cases



## MOVE DATA & EXTENSIONS

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- [Custom Code Migration Application](#)
- [Business Partner Data Conversion](#)
- [Automated Upload of Documents](#)

## MAINTAIN CLEAN DATA

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- [Business Partner Background Check](#)
- [Business Partner Master Data Check](#)
- [Eliminate data duplication in your master data](#)<sup>1</sup>

## INTEGRATE SAP APPLICATIONS<sup>1</sup>

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- [Integrate with SAP Concur](#)
- [Synch Purchase Requisition Documents to SAP Ariba Buying](#)
- [Integrate with SAP Field Service Management](#)
- [Integrate with SAP Fieldglass](#)
- [Integrate with SAP Subscription Billing](#)
- [Integrate with SAP SuccessFactors Employee Central](#)
- [Integrate with SAP Supply Base Optimization](#)
- [Integrate with SAP Customer Engagement Center](#)
- [Integrate with SAP Project Intelligence Network](#)
- [Integrate with SAP Market Rates Management](#)

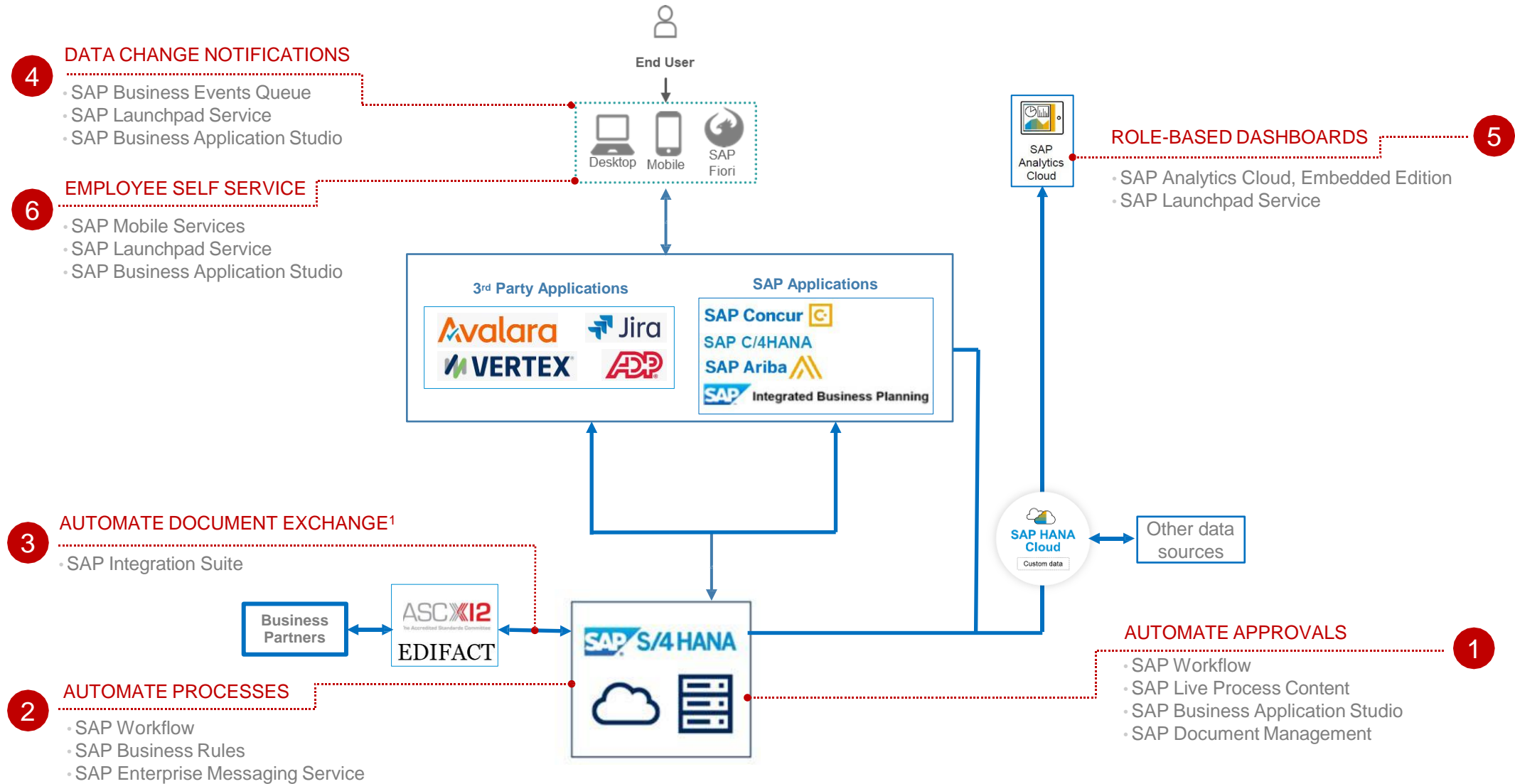
## INTEGRATE 3<sup>rd</sup> PARTY APPLICATIONS<sup>1</sup>

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- [Publish Documents from SAP S/4HANA Cloud to SharePoint](#)
- [Integrate IAS with Third-party IDP](#)
- [Integrate with OEM Just-In-Time Solution](#)
- [Integrate with Avalara AvaTax](#)
- [Integrate with Vertex Tax Solution](#)
- [Integrate with Third-party Payroll](#)
- [Integrate with Salesforce](#)
- [Integrate with Jira](#)

<sup>1</sup> Credits provide partial discount  
Visit [Discovery Center](#) for more use cases

# BTP *Optimizes* S/4HANA Processes



# Explore BTP *Optimization* Use Cases



## AUTOMATE APPROVALS

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- Automate Payment Data Approvals
- Automate Capital Expenditure Approvals
- Automate Purchase Requisition Approvals
- Add additional approval steps to an SAP S/4HANA standard process
- Automate Document Centric Approval Process

## AUTOMATE PROCESSES

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- Automate Contract to Purchase Requisition Assignment

## AUTOMATE DOCUMENT EXCHANGE<sup>1</sup>

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- Automate Supplier Document Exchange
- Automate Procurement Document Exchange

## DATA CHANGE NOTIFICATIONS

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- New/Changed Sales Order Alerts

## ROLE-BASED DASHBOARDS

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- Live HR Data Cross-Suite Reporting

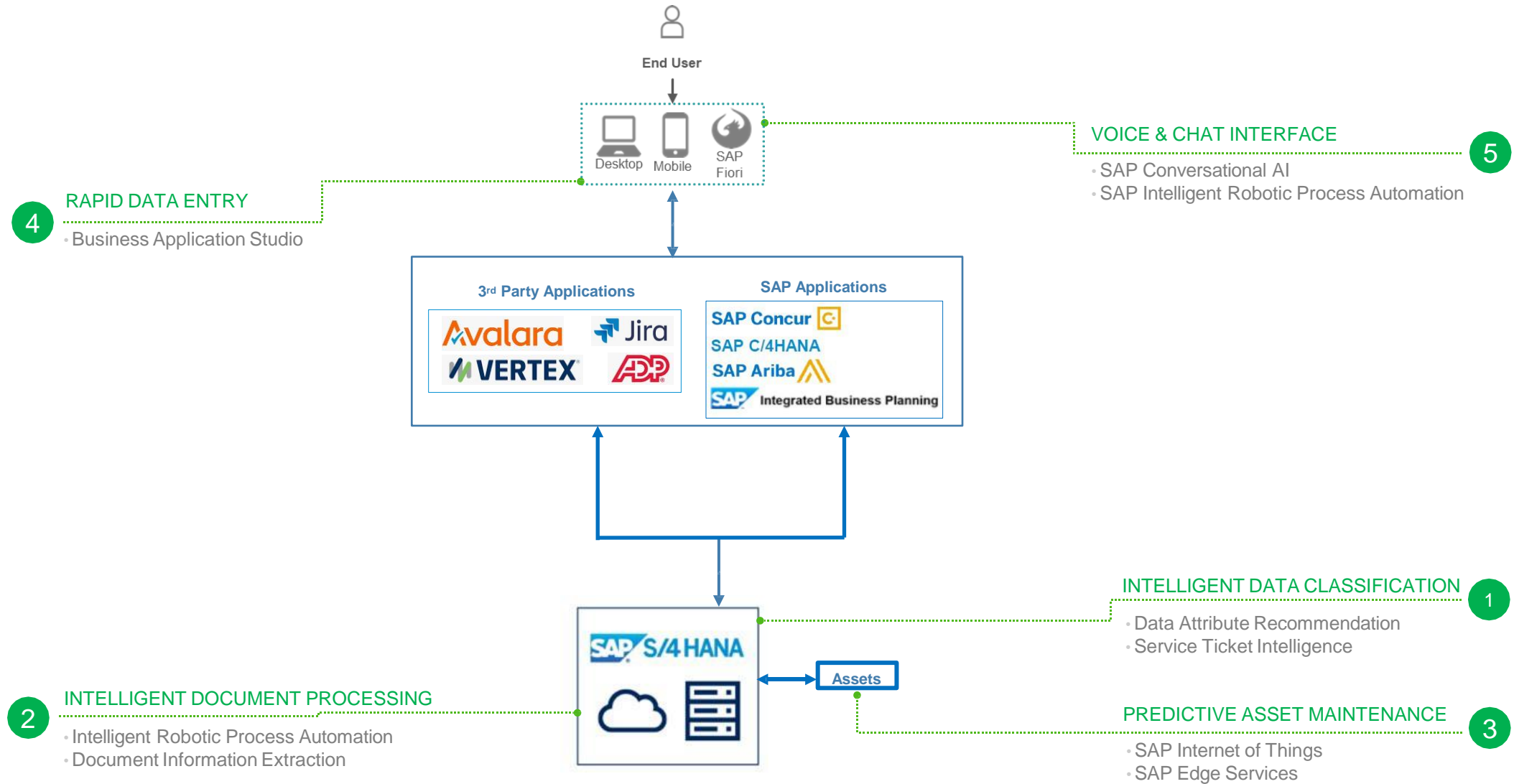
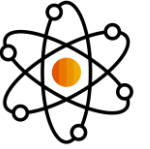
## EMPLOYEE SELF SERVICE

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- Mobile Access to HR Data
- Mobile Self Service for Remote Workers

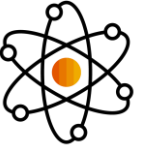
<sup>1</sup> Credits provide partial discount  
Visit [Discovery Center](#) for more use cases

# BTP *Differentiates* S/4HANA for Advantage





# Explore BTP *Differentiation* Use Cases



## INTELLIGENT DATA CLASSIFICATION

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- Automate Material Data Classification
- Automate Ticket Handling with Service Ticket Intelligence

## INTELLIGENT DOCUMENT PROCESSING

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- Automate Document Processing
- Automate Document Data Extraction
- Automatic Return Creation from Excel

## PREDICTIVE ASSET MAINTENANCE

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- IoT enabled Field Service Management to automate Service Calls

## RAPID DATA ENTRY

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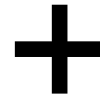
- Quick Work Time Entry

## VOICE & CHAT INTERFACE

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- Access documents via a chatbot.
- Supplier Invoice Status Checks

**SAP S/4HANA**



**SAP Business  
Technology Platform**



**Accelerate and  
simplify migration**

- Move Data & Extensions
- Keep Data Clean
- Integrate SAP Applications
- Integrate 3<sup>rd</sup> Party Applications



**Optimize and  
automate business  
processes**

- Automate Approvals
- Automate Processes
- Automate Document Exchange
- Data Change Notifications
- Role-Based Dashboards
- Employee Self-Service



**Differentiate to gain  
competitive advantage**

- Intelligent Data Classification
- Intelligent Document Processing
- Predictive Asset Maintenance
- Rapid Data Entry
- Voice & Chat Interface

**Discover these use cases and more:**

**SAP Extensibility Explorer**

**SAP API Business Hub**



SAP Intelligent Robotic Process Automation Store

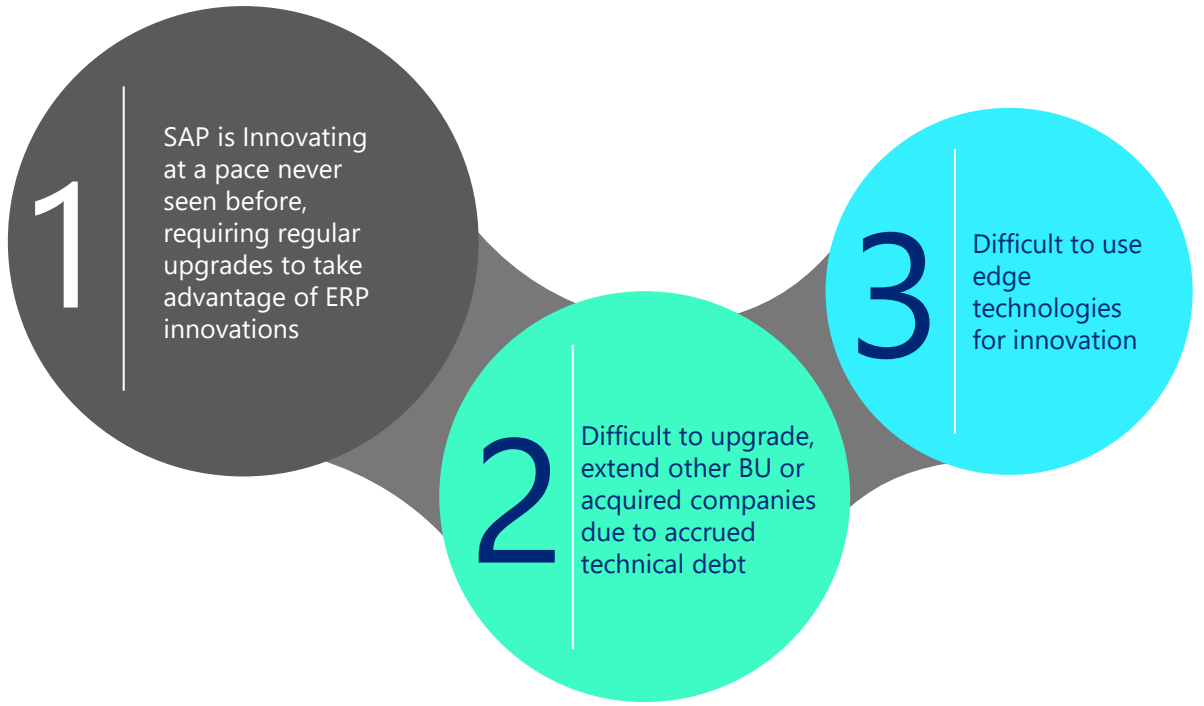
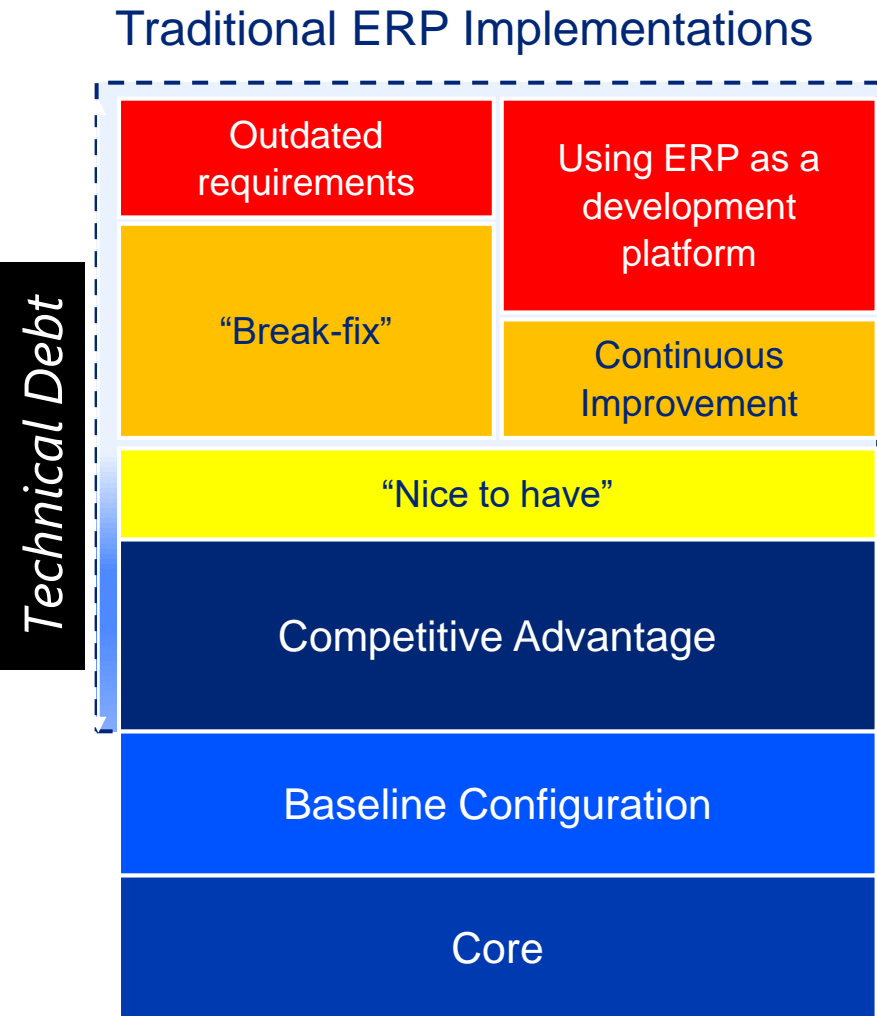


SAP Discovery Center

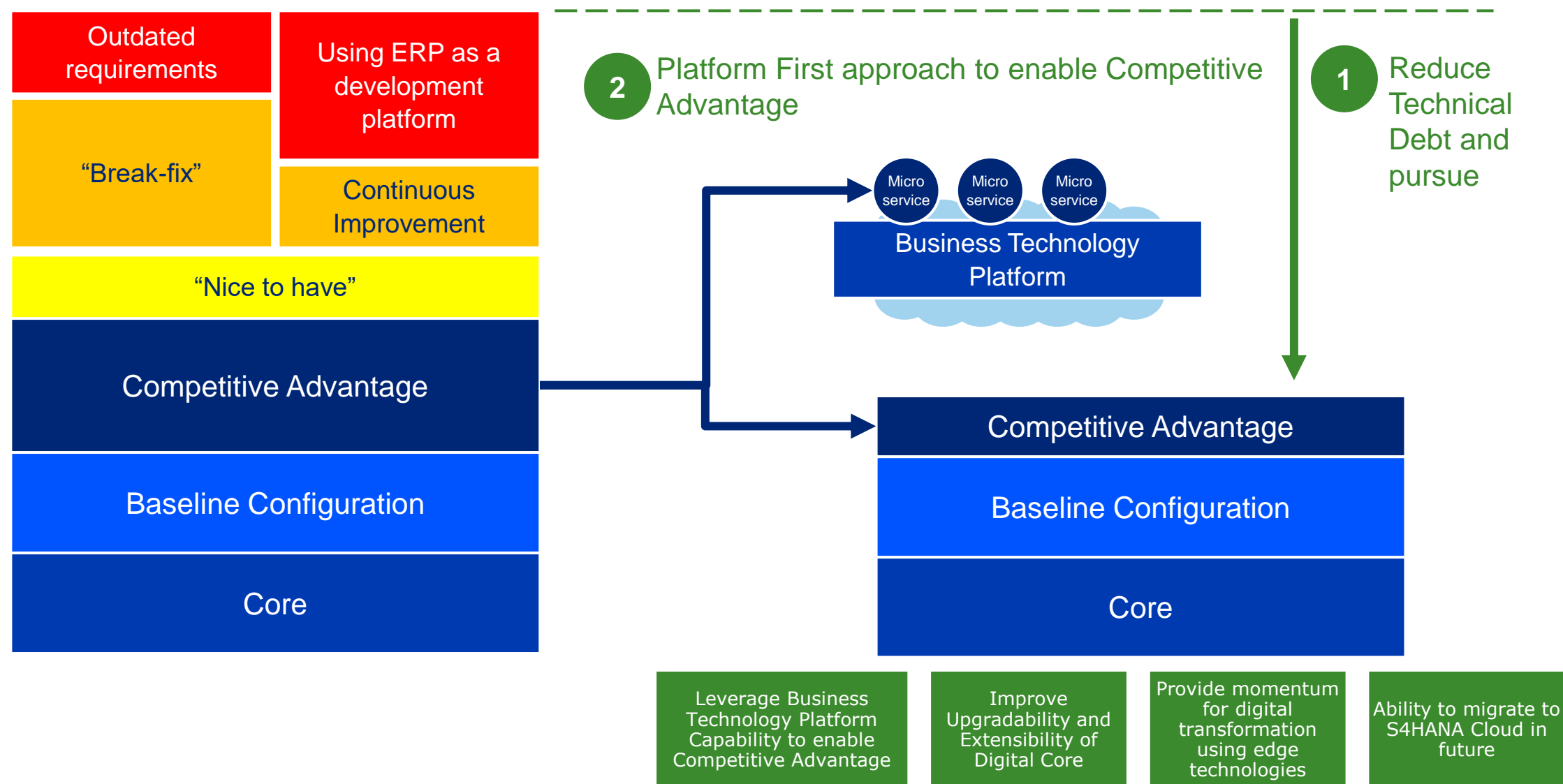
# Motivation and main components



# The Problem



# Fit to Standard and deploying Clean ERP is the Solution





# Business Technology Platform – Key Capabilities

## Motivation

### Extend

- Extend current cloud and on-premise applications
- Deploy pre-built app extensions
- Leave the core whole (Clean ERP)
- Use intuitive toolsets to accelerate development for extensions

### Integrate

- Integrate on-premise and cloud applications
- Connect apps, data and business processes
- Leverage prebuilt API's to accelerate development
- Use business rules, workflow and oData provisioning to interact with on-premise

### Innovate

- Build Applications using RAD tools
- Realize value quickly independently of On-Premise activities
- Leverage new technologies – IoT, ML, Big Data, bots
- Bring your own language for developer flexibility

# Overall Extension Strategy – adhering to Clean when customizations are needed



# In App Extensions within S/4HANA

## Key Capabilities using the In App Framework:



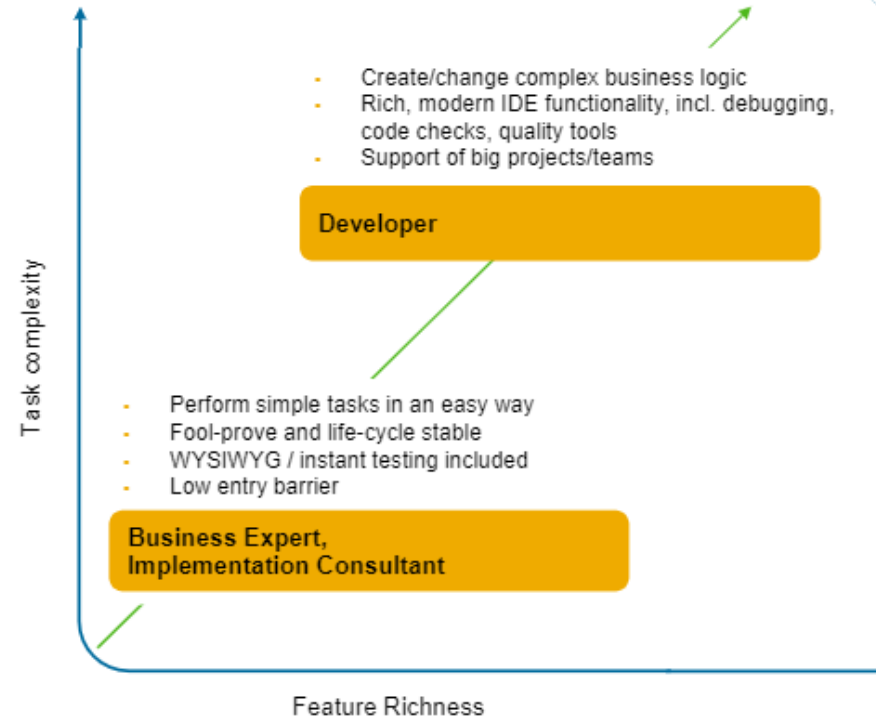
### Empowering the Key User

#### Challenge

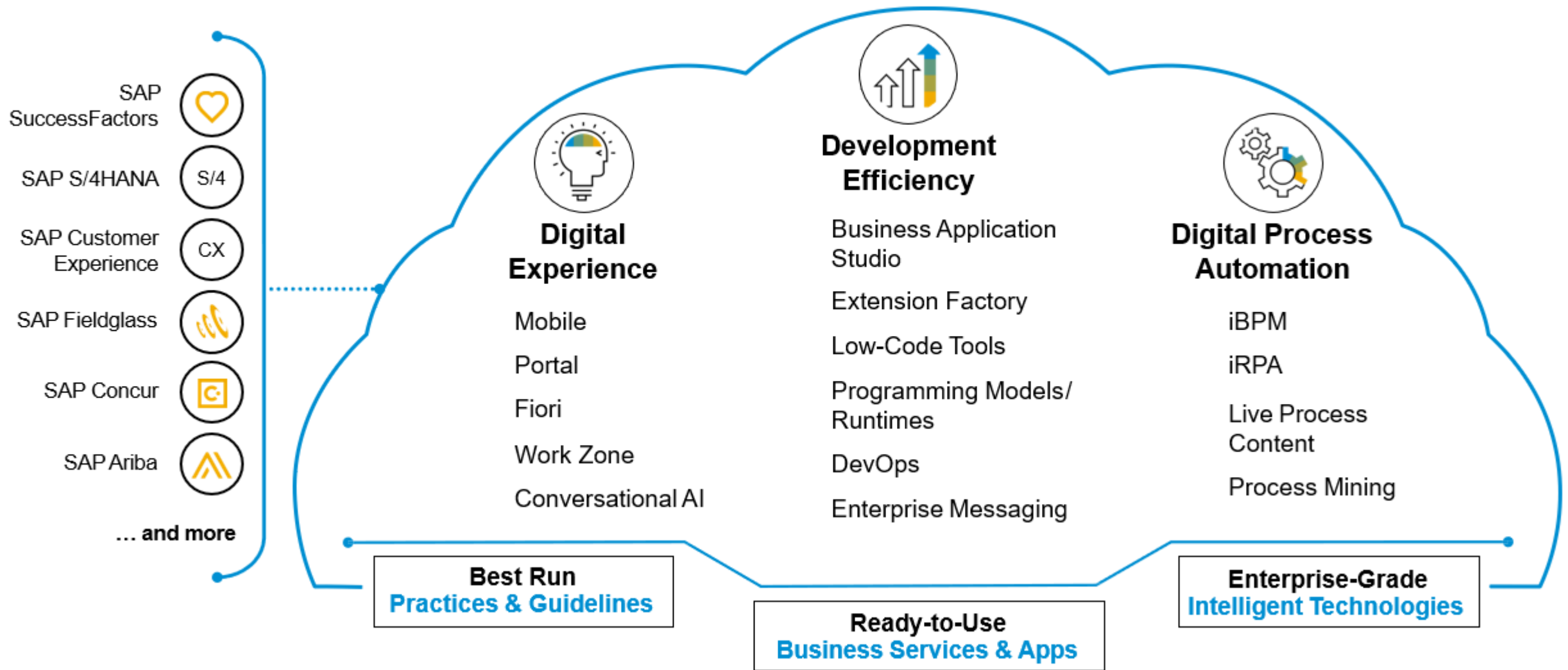
- Line of Business departments drive the implementation of (Cloud / IT) services

#### Solution

- Extensibility tools are used by in business departments that should easily apply non-disruptive extensibility tasks without risk.
- In particular for:
  - UI Adaptations
  - Custom fields and tables
  - Custom analytics and forms
  - Custom business logic (cloud ABAP Web editor)



# Side by Side Extensions using Business Technology Platform (BTP)



# Clean ERP Reference Architecture

## Use In App and Side by Side Approaches

- Protect the Digital Core for future upgrades

## API First Approach

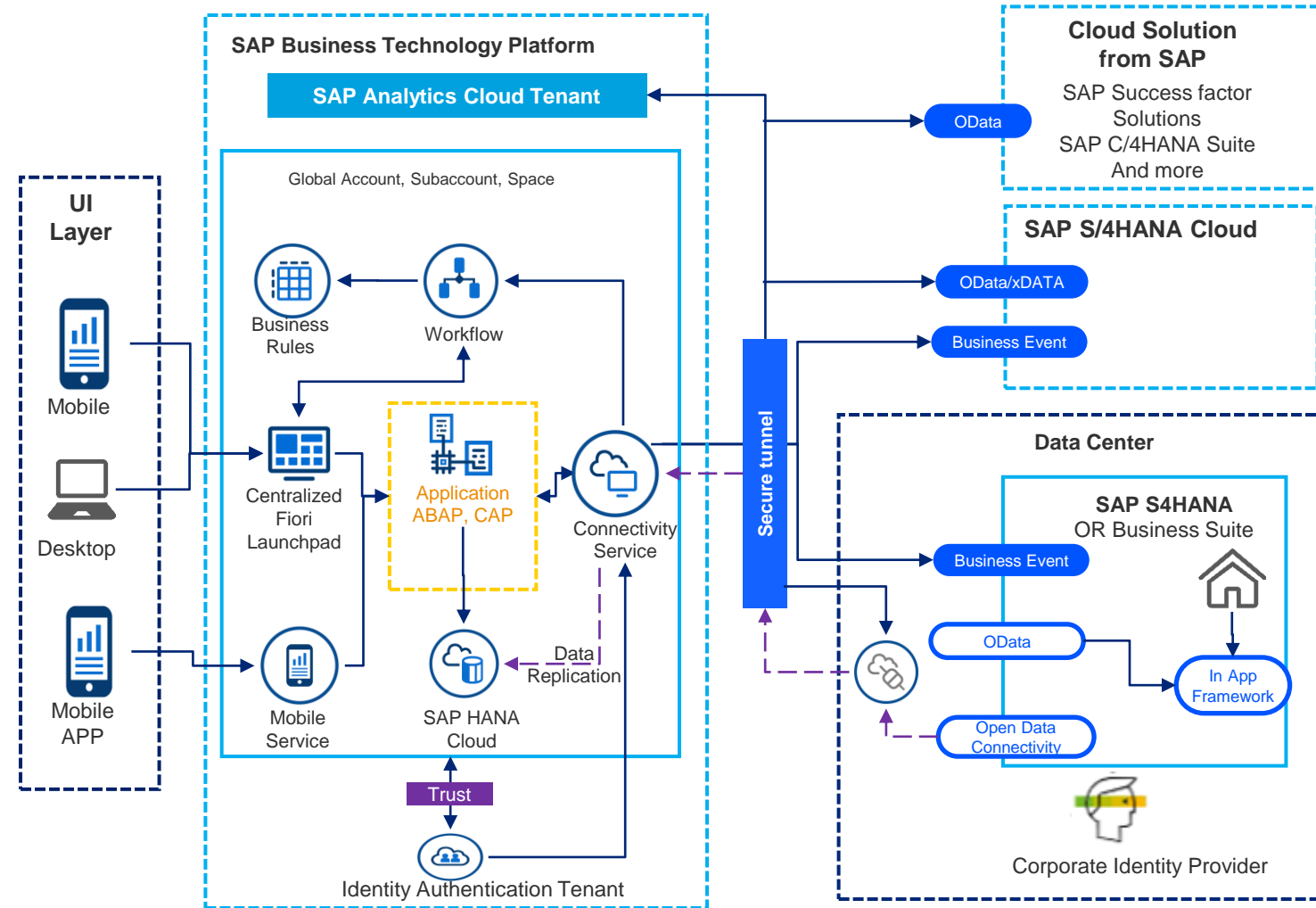
- Use SAP provided API's and Integrations

## Simplify the Architecture

- Use Cloud components where possible

## Configuration, not coding

- Leverage SAP's In App framework and standard Integration / Extensions before coding



# Customer Showcase – Clean ERP





## Customer Showcase

**Scenario:** Consolidation of multiple legacy SAP and non-SAP landscapes into a single global instance of S/4HANA. Desire to adhere to standard and where customizations are needed to follow adherence to a clean core, to enable easier upgrades and agility in the future.

### Solution:

Run the program using available In App and Side by Side using BTP Extensibility Suite approaches to ensure ease of upgrades in the future, and the ability to upgrade without downstream impacts due to custom code

### Objectives:



Leverage configuration and not coding using both In App as well as rapid application development (RAD) tools in BTP



Use BTP services in the Extension Suite to decouple the extensions from core S/4HANA

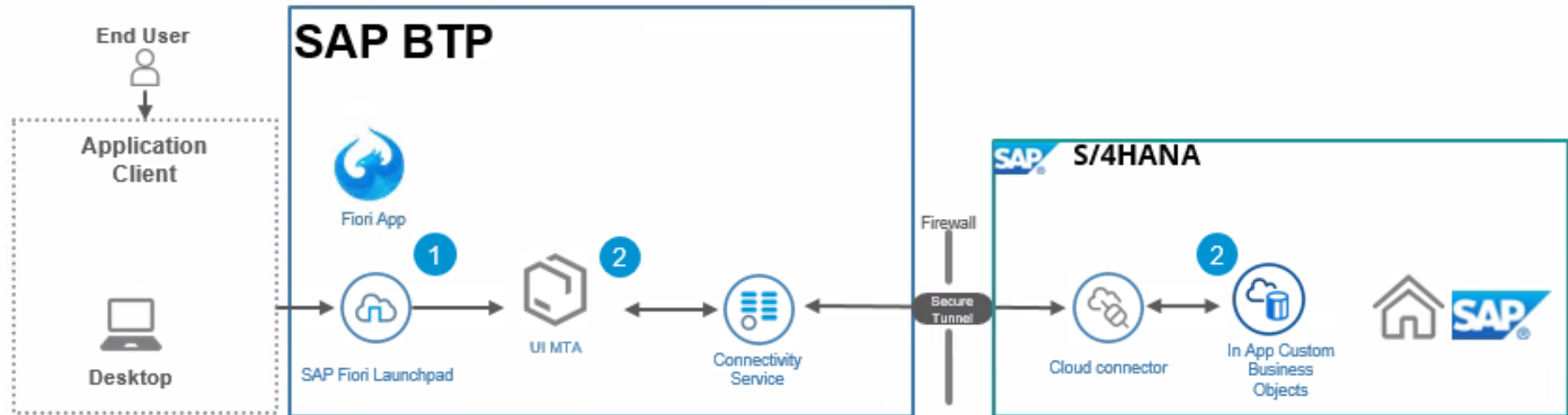


Full DevOps and CI/CD pipelines to automate migration of apps across landscapes and ensuring code quality



Governance Model to ensure that approved extensibility approaches are used in order to keep the Core clean from customizations

## Example – Use case with In-App and Side by Side in scope



1 A Fiori UX, exposed by the Portal Service as a Launchpad Module, initiates the MTA application

2 MTA contains all BTP Cloud services required to expose the Fiori UX to the end user to maintain the CBO in S/4HANA

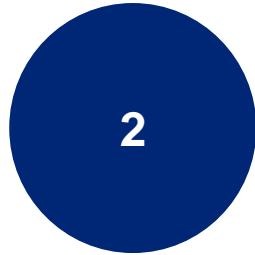
2 Create the tables on SAP S/4 HANA using in-app extensibility (Custom Business Object) and expose them as oDATA API

## Governance Components – How do we guide the build teams on adhering to Clean?



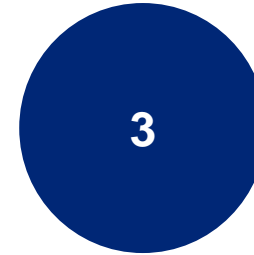
Usage of approved Extensibility Approach

Prebuilt Extensibility Approaches aligned to SAP's extension recommendations. Complete with when to use / not use, tutorials and details for developers to leverage.



Decision Flows to guide the teams on what Extensibility Approach to use

Detailed decision flows – guiding our technical team on when to use what approach. Ensures that the correct Extensibility Approach is used for the gap or requirement.



Use of diagrams to show end to end design

Use of Diagrams which show how the end-to-end design works, including required components as well as optional add-ons depending on needs.

# Best Practices and Lessons Learned



## Guiding Principles Achieving Clean ERP

Fit to Standard – Use standard wherever you can

Use In App and Side by Side Approaches

Use whitelisted API & CDS views, no custom oData API's in the Core (i.e. SEGW)

Keep the Core Clean

Only use Cloud Foundry – Neo is being deprecated

Develop innovations on BTP

Use Fiori UI/UX and SAP's Central Fiori Launchpad in BTP

No Classic Extensions (Yellow or Red patterns)

Ensure all standards are updated regularly, as SAP pushes updates frequently

# Lessons Learned

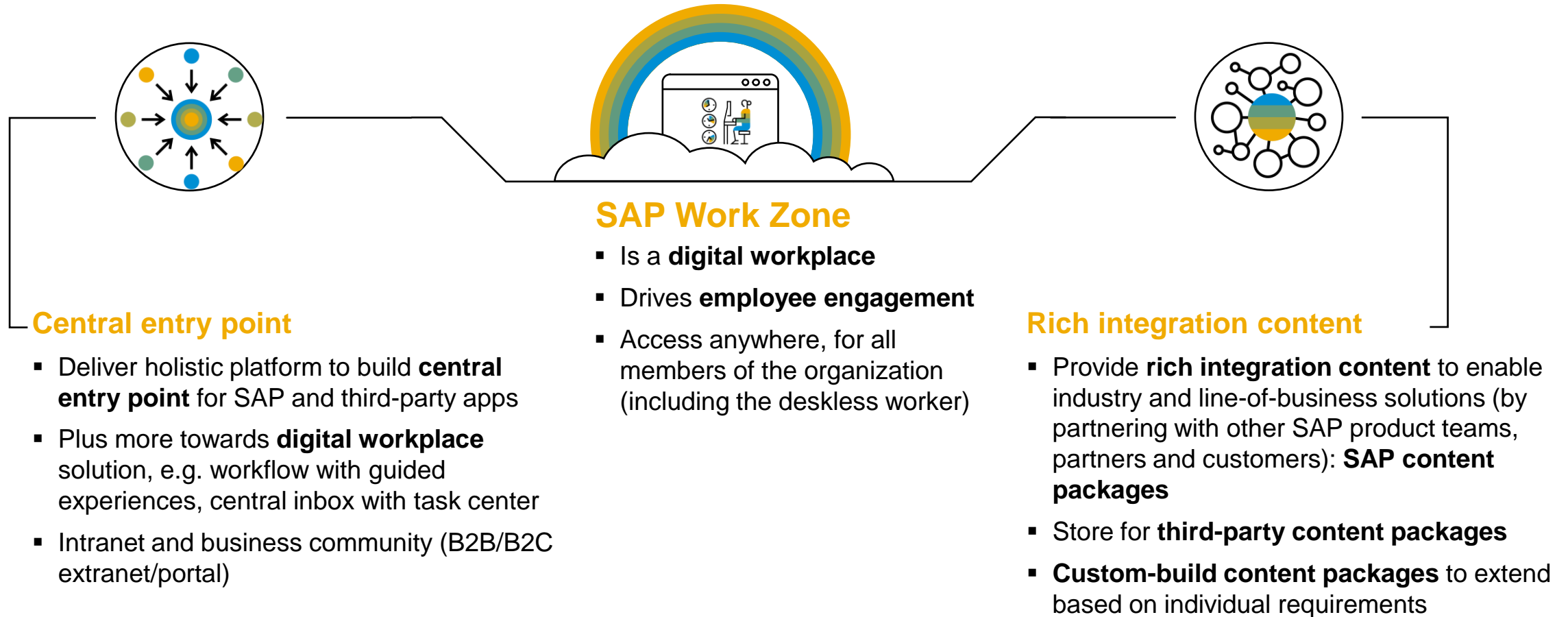
- Be Flexible, as SAP pushes new innovations and changes to BTP and the In App framework regularly
- Stay up to date, innovations come quickly, SAP Developer Tutorials and OpenSAP are two great resources at your disposal
- Look at SAP's BTP Discovery Center frequently for new services and major updates to existing services:  
<https://discovery-center.cloud.sap/>
- Leverage the trial account for exploration and to see what is possible, this environment also includes beta features

# Product Showcase – Overview, UX and Benefits



# SAP Work Zone – Digital workplace drives employee engagement

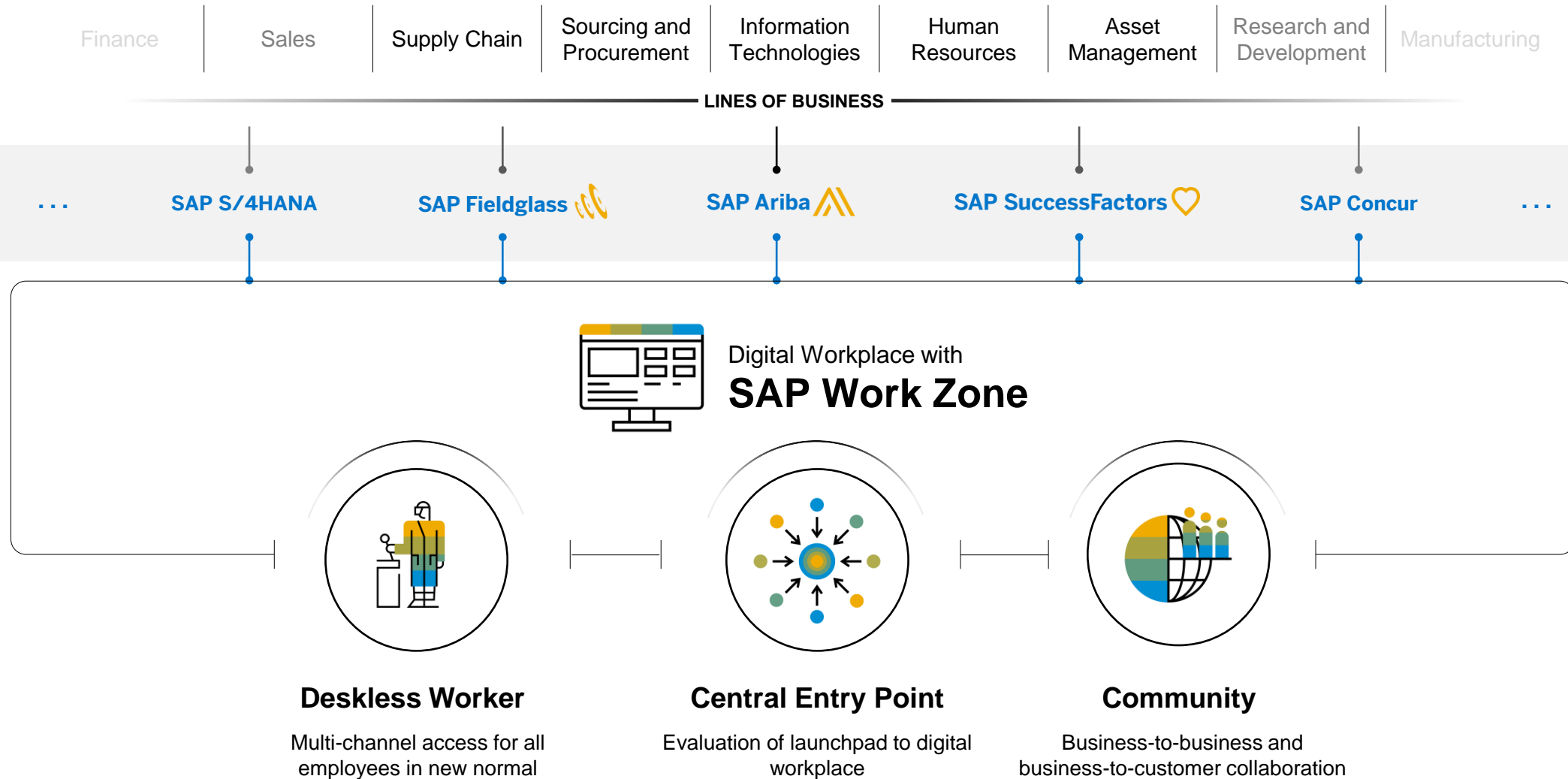
## Strategy



Digital workplace solution is a **new category**, not Portal 2.0 or Jam Collaboration 2.0. SAP Work Zone is not a successor product of Portal or Jam even though it offers a smooth **transition** path. - Analysts see SAP as one of the drivers, for instance leader in **MXDP**, Multi-experience development platform, Source: SAP Homepage (July 13, 2020, [link](#), referring to Gartner study)



# Three areas to meet your needs in New Normal



# Central Entry Point

## - The 'face of the Intelligent Enterprise'



Embedded visual **Page Editor**



Connected **SAP business apps**



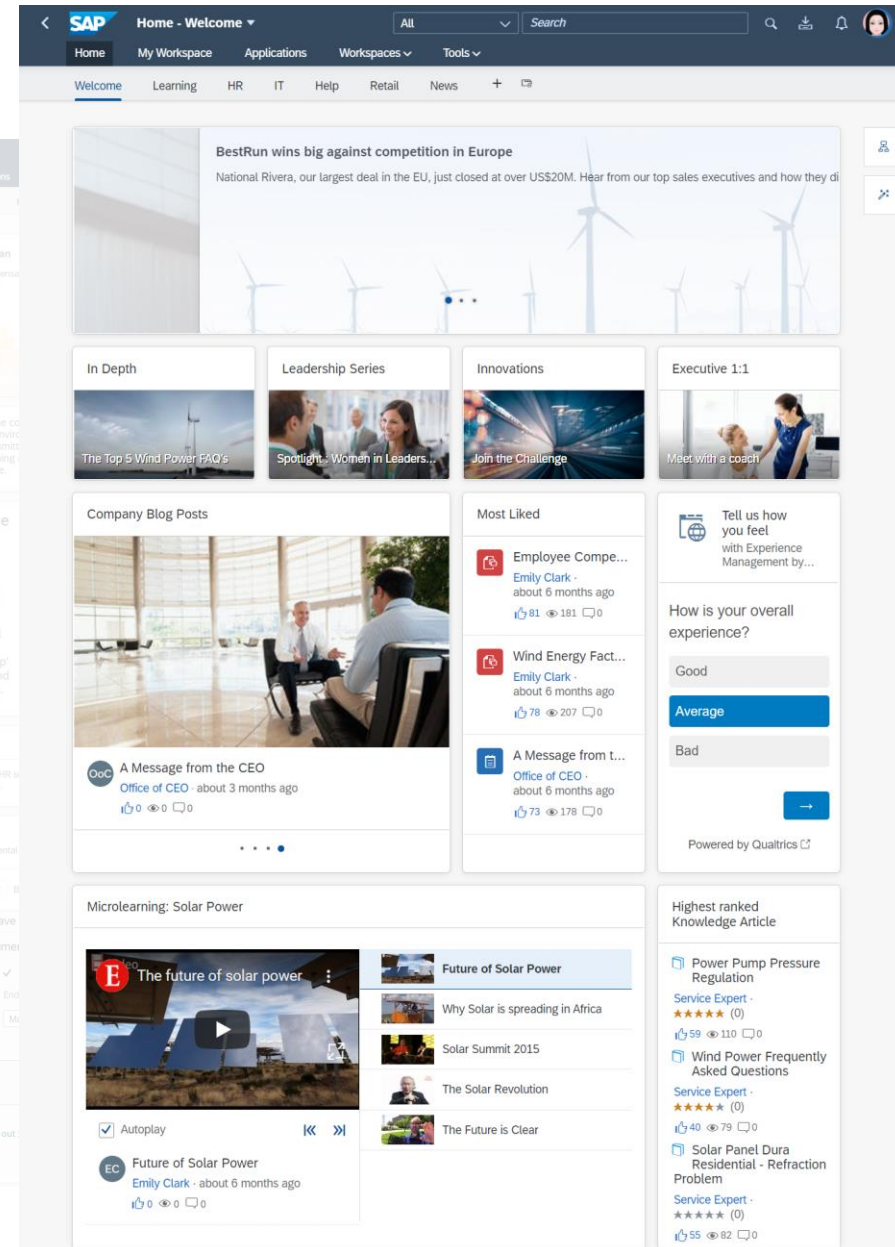
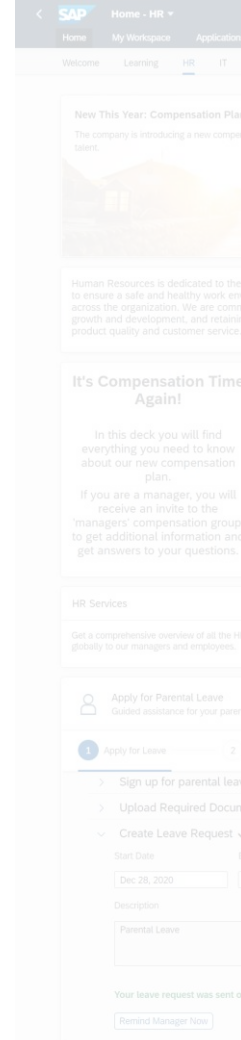
Out-of-box **cards and widgets** for pages



UI **Integration Cards** to connect third-party apps



Built-in integration with **Conversational AI**



# Deeper dive...



## USER-FOCUSED

Personalized and easy to use with role-based data



## ENGAGING

Central entry point for multi-application landscape. Configurable page layout.



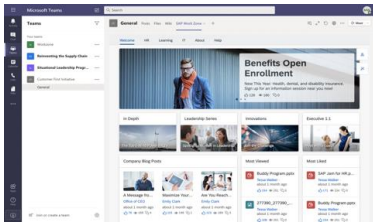
## CREATE GUIDED WORKFLOW EXPERIENCES

Use a template project to build guiding user experiences on top of workflows



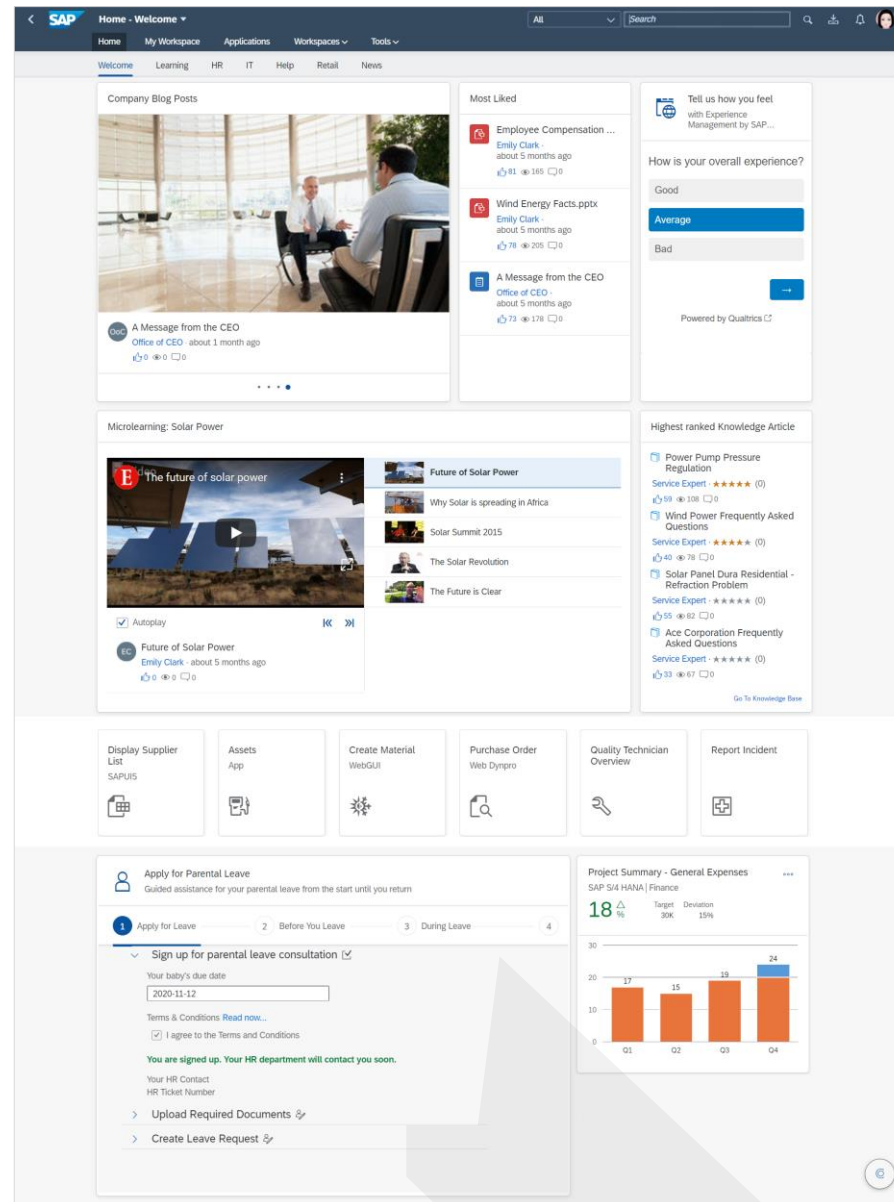
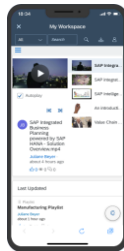
## TEAM COLLABORATION

Utilizing Microsoft Teams



## MOBILE READY

Anytime, anywhere access with responsive web and a dedicated mobile app



## MY INBOX



Process workflow tasks that matter to you within the integrated My Inbox application

## SEARCH



Discover and find information with powerful content and document indexing

## INTEGRATE EXPERIENCE MANAGEMENT



Engage, monitor and measure with Qualtrics embedded within the experience

## KNOWLEDGE BASE



Create, retain and share knowledge across the entire organization

## SAP BUSINESS APPS



Quick access to SAP S/4HANA and other frequently used business apps

## UI INTEGRATION CARDS



Embed and display SAP and third-party business data from across your organization

## EXTEND AND DEVELOP



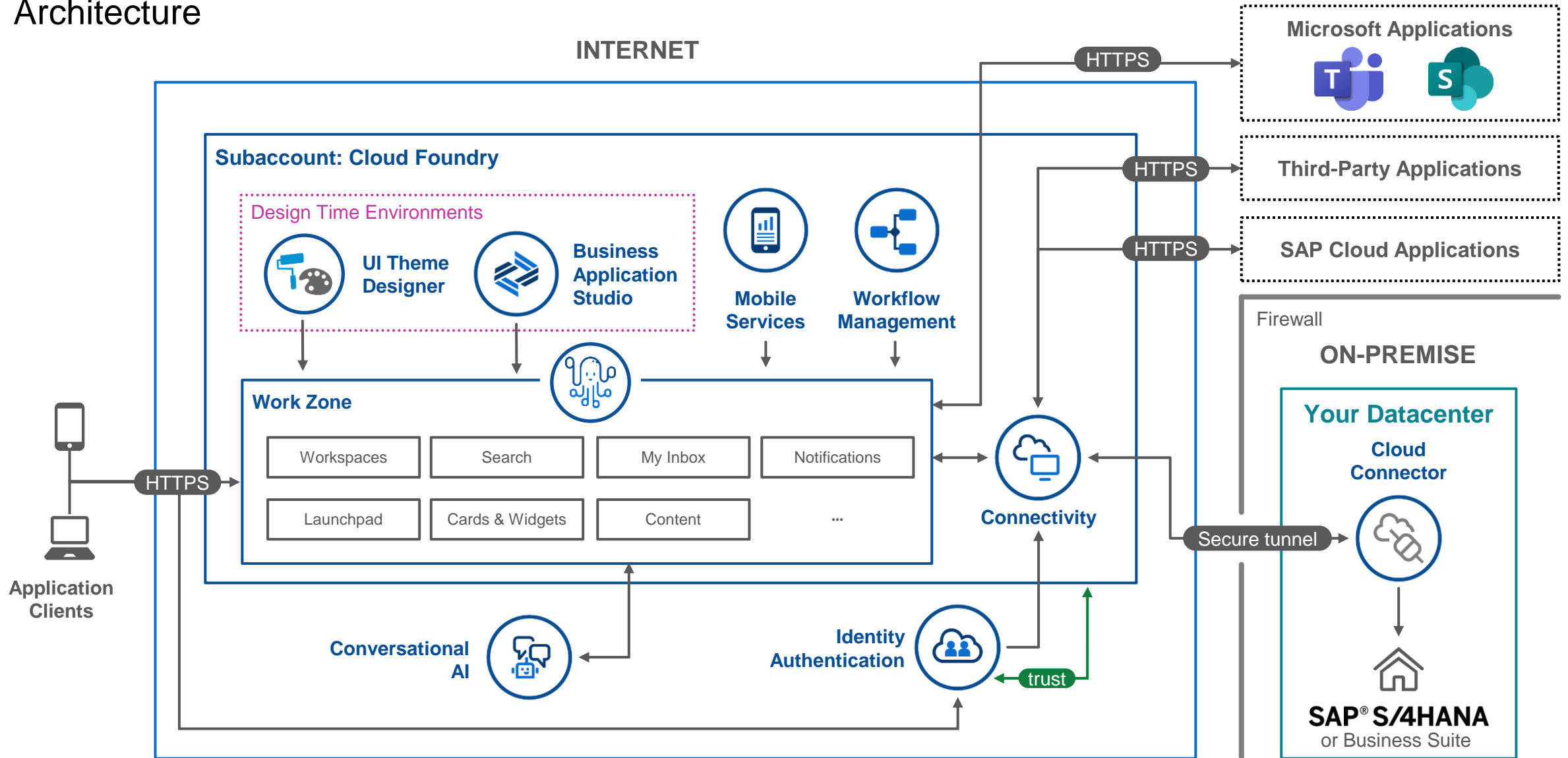
Extend with full IDE based on SAP Business Application Studio

## INTEGRATE CONVERSATIONAL AI



Develop and integrate chatbots

# Architecture

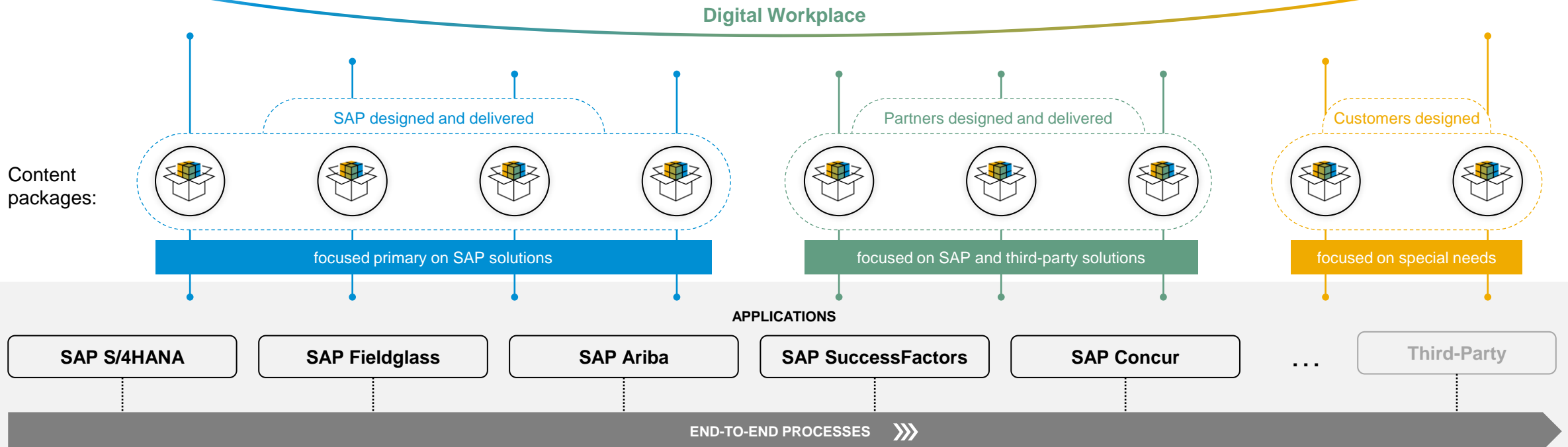


# Enrich digital workplace experience with Content Packages



**SAP Work Zone**

Holistic platform to design and deliver rich integration content and close user experience gaps in end-to-end processes across all business apps



# Digital Workplace for the Intelligent Enterprise

Customer value

## For the user



Personalize the experience



Gain faster access  
to information

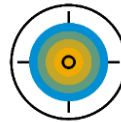


Conduct business anywhere

## For line of business



Increase employee engagement



Increase productivity  
powered by intelligence



Improve business agility

## For IT



Provide a unified experience



Deliver an integrated  
user experience



Extend and customize  
to your needs



# Thank you.

Contact information:

**F name L name**

Title

Address

Phone number

**Deloitte.**

THE BEST RUN 