Business Technology Platform
Application Development and Integration

Yousef Ali, SAP
July 28, 2022

ASUG

THE BEST RUN SAP

Digital technology platforms are a key innovation enabler

Firms that have a flexible technology foundation and a business operating model that can change quickly **grow nearly three times faster than their industry average**.
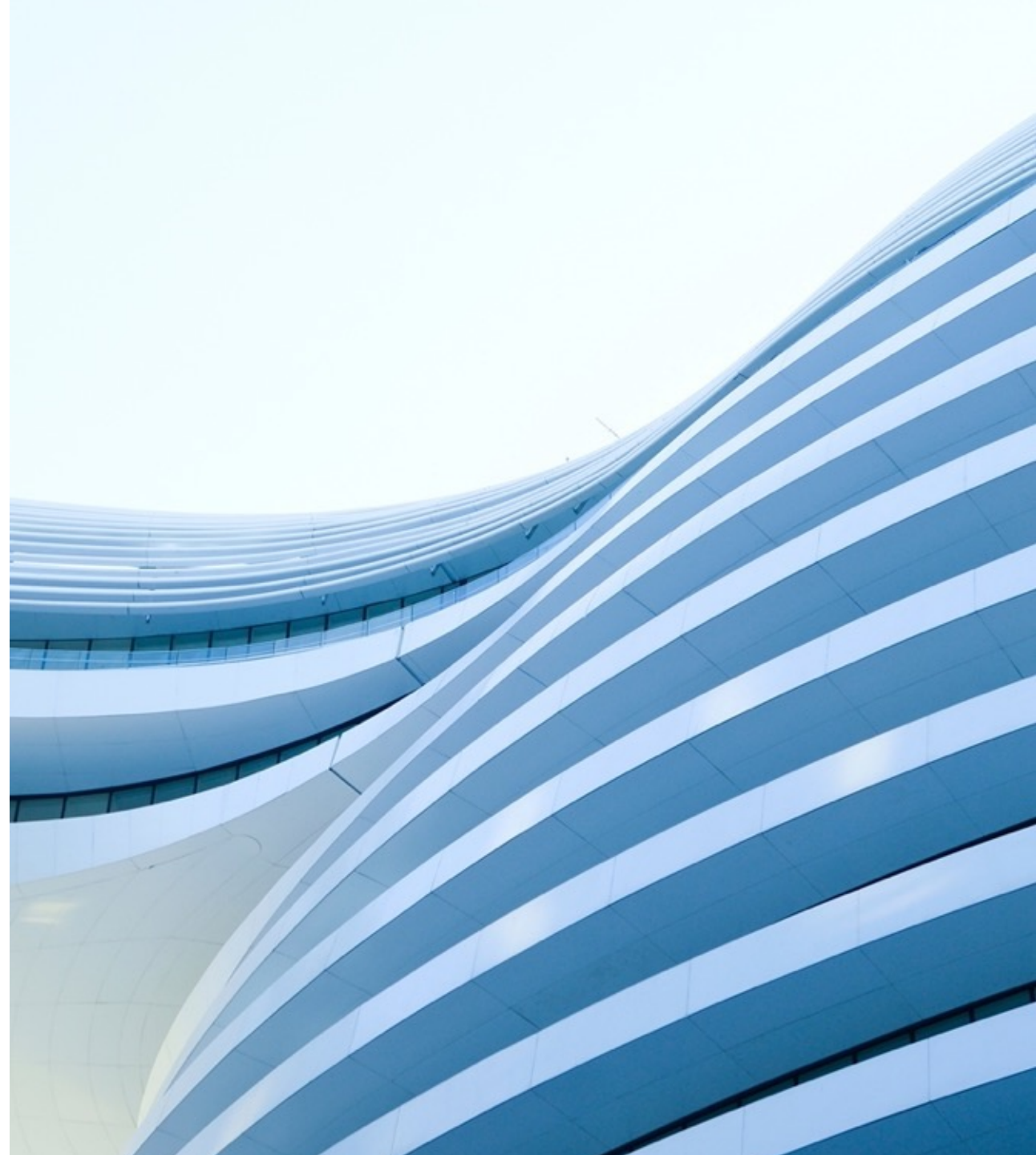**Forrester**

Companies that innovate faster with software also score **higher on customer satisfaction, brand perception, and talent management**.

McKinsey

Forrester: Future Fit Firms Outpace The Competition, April 2021
McKinsey: Developer Velocity: How software excellence fuels business performance, December 2020

Application Development

Why keep the CORE clean?

Boost adoption and support by saying 'yes' more often	Using standard SAP software will drive business agility.	Cloud technologies boost innovation.	Align business processes by discussing going "back to standard."	Discover new business models and realize early ideas fast.
Manage Change	**Speed**	**Innovation**	**Tearing down silos**	**New business models**

Latest technologies provide a better and uniform user experience.	Reduce efforts for testing with clean core developments guidelines.	Future-proof technologies will prepare your core systems for the cloud.	Develop highly robust and scalable cloud-native applications.	Cloud technologies are fun! Create possibilities and flexibility for your team.
User experience	**Minimizing upgrade efforts**	**Cloud-ready**	**Focus on business logic**	**Motivating employees**

In App Extensibility vs Side By Side

User Interface Layer   Application Layer   Database Layer

Adopt new user interface

Create custom embedded reports

Expose data

Create forms / email templates

Add application logic

Add database fields / objects

SAP S/4HANA

In-app extensibility

Secured connectivity

← User Interface →
← Rules / Workflow →
← Process / Events →
Data Replication →

SAP BTP

Side-by-side extensibility

Mobile and Portal User Experience

Workflows, Process Automation, Cross-App business logic

Integration: A2A, B2B, B2C, B2G

Cross-app analytics, predictive analytics and data marts

New ERP-based business services

Big Data, Data Science and Intelligence

E2E Security / E2E Lifecycle Management

A real world use case for Extensions

In-App Extensibility

Side-by-Side Extensibility

Business Case

SAP BTP

SAP S4/HANA
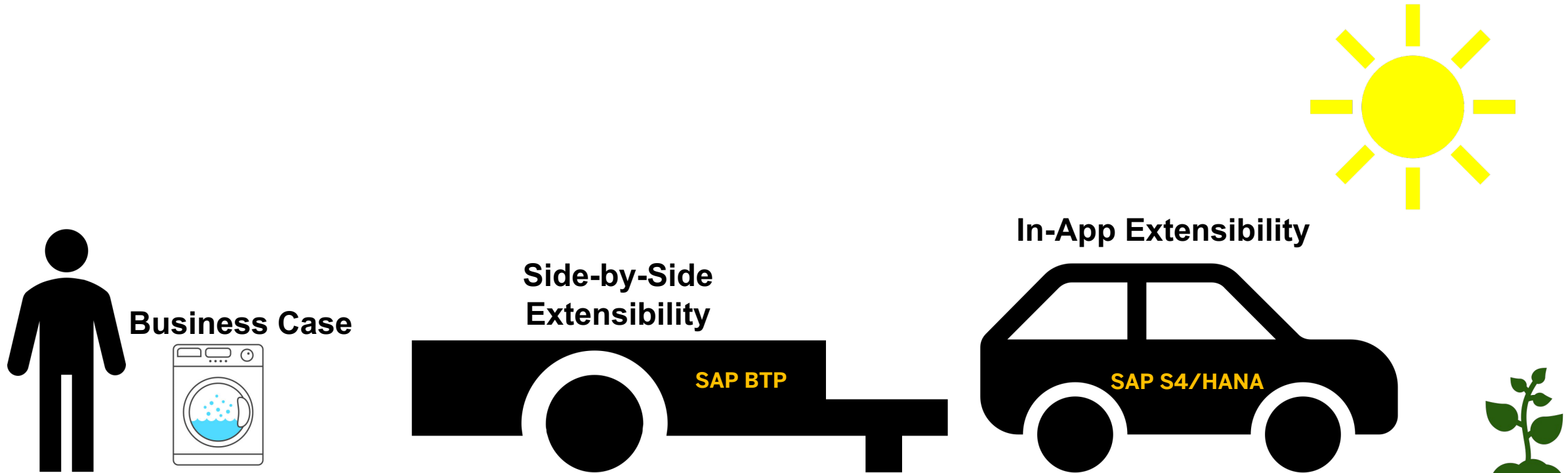
What are Extensions?

- A **software engineering principle**
- **Enhancements** without impairing existing system functions
- Addition or modification of **functionality**

SAP Business Technology Platform

Secure & compliant
Open & flexible
Unified & simple

Broad ecosystem
Enterprise-grade & scalable
Business-centric

Business Technology Platform

App Dev	Integration	Data and Analytics	AI
→ Digital Experience	→ Process integration	→ Database	→ Pre-built AI models
→ Process Automation	→ API led integration	→ Data management	→ Intelligent processes
→ Visual Low-Code / No-Code programming	→ Event based integration	→ Data warehouse	→ Self-learning programs
→ Development Efficiency	→ Data integration	→ Analytics & planning	→ Data security & decentral persistence

Digital Experience

Digital Experience

Connect people, data, and processes with engaging experiences

DIGITAL EXPERIENCE

Connect people, data, and processes with engaging experiences
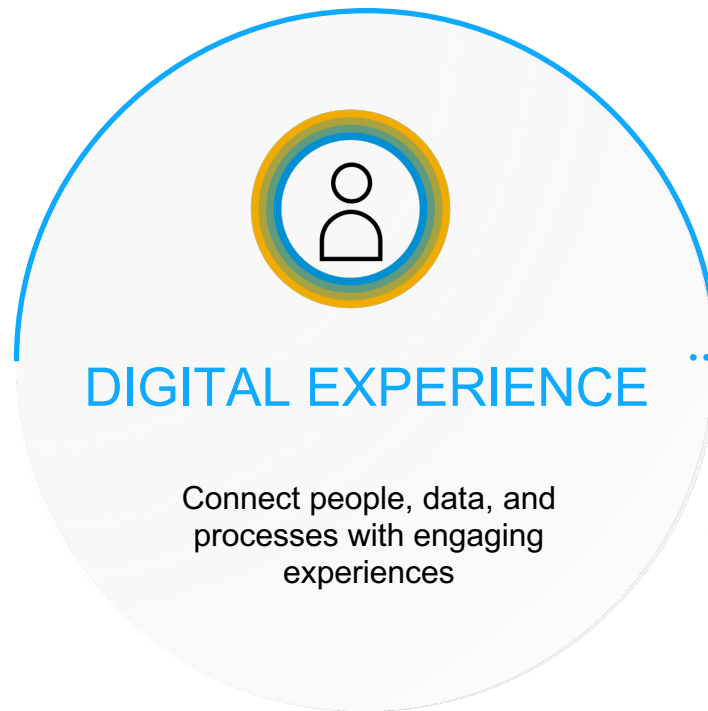
- Provide **consistent, contextual, and personalized** access to the information you need, when you need it, wherever you need it

- Empower business users with a **simplified digital workplace experience** to foster increased engagement, and a better overall experience for your people, customers and partners.

- Jumpstart experience development with **prebuilt templates, conversational bots, and connected services** for SAP solutions

*Improve people engagement, resource efficiency, and employee productivity*

SAP Digital Experience Services

SAP Launchpad
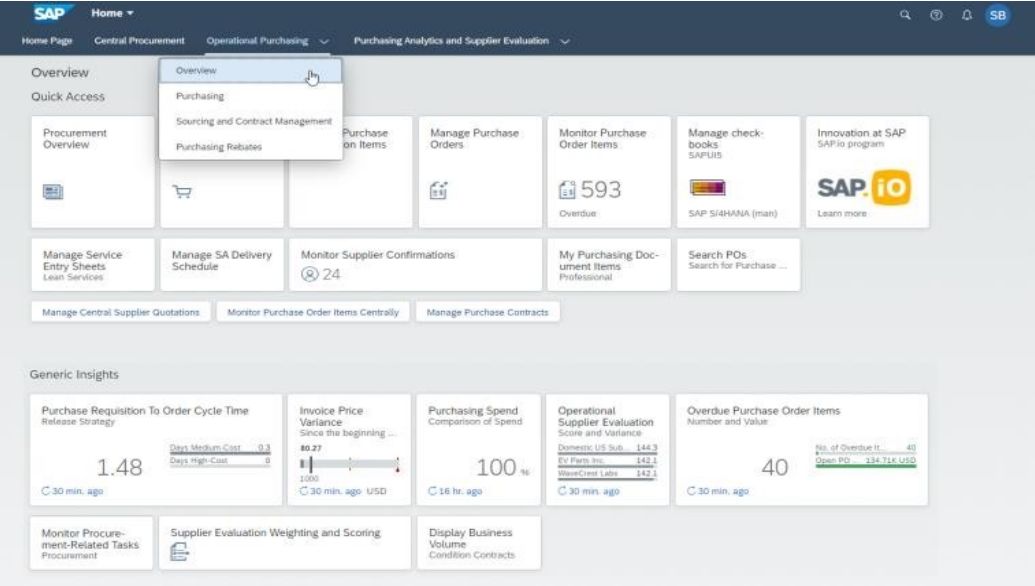
SAP Work Zone

- Establish a central point of access to applications, tasks and processes (SAP Fiori launchpad in the cloud)

- Common UX integration for SAP solutions (for example, SAP S/4HANA) and custom apps and extensions following the SAP Fiori UX
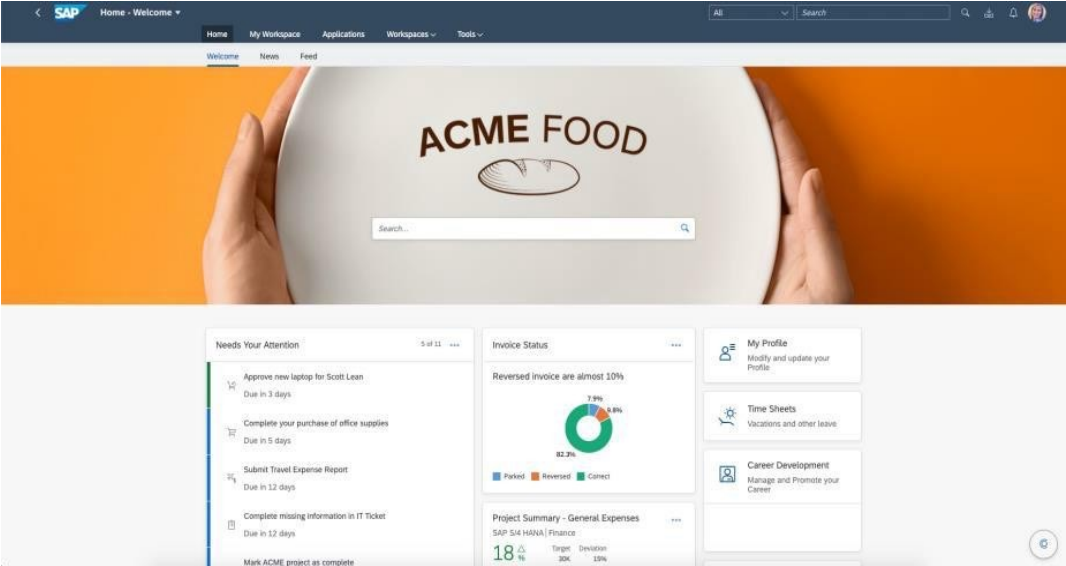
- Establish a central point of access to applications, tasks and processes

AND (on top)

- Additional capabilities such as guided experiences, flexible page building / layout incl. web content, document access, flexible UI cards, and workspaces for collaborative knowledge sharing

- Empowering a user-centric, modern digital workplace

How Customers are Extending

Solution

MURPHY
OIL CORPORATION

SAP Integration Suite
SAP Extension Suite

Our business is able to proactively prevent problems impacting our production in the future. The platform gives real-time visibility to people in the field, thus improving the safety culture. We have seen a productivity gain in the range of 15–20% with the same workforce we have. It's super exciting in terms of the different technologies we are using SAP BTP. It has truly solved a business problem."

Rajesh Satewar, Director SAP and Enterprise Applications, Murphy Oil

Integrated
15+ disparate systems into a single platform

15%
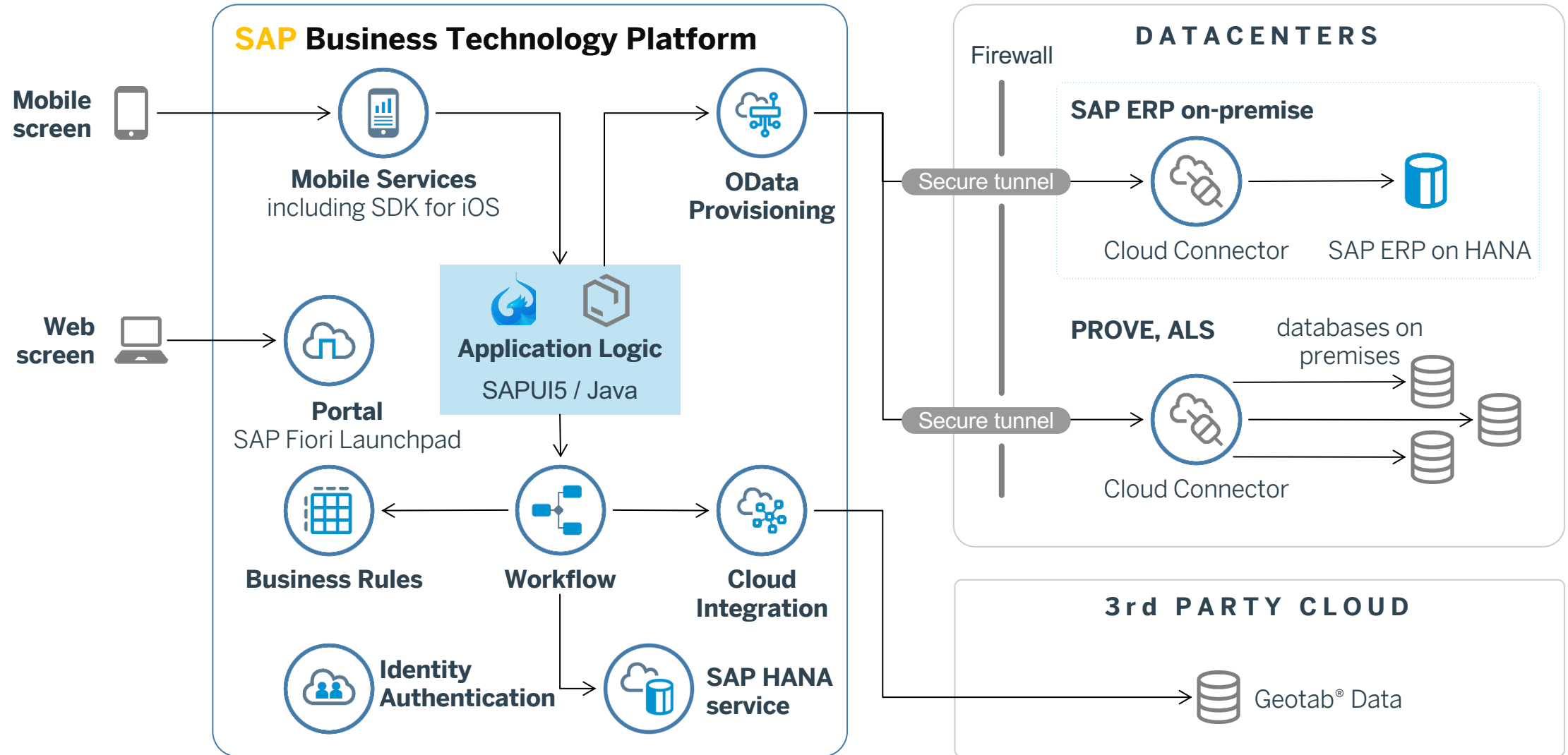increase in overall productivity

Smarter technology
Reduced manual labor and improved staff safety

ROI
Realized in less than one year

20%
Increase in Revenue

Integrated Operations Platform

SAP Business Technology Platform

Mobile screen → Mobile Services including SDK for iOS

Web screen → Portal SAP Fiori Launchpad

Application Logic
SAPUI5 / Java

OData Provisioning

Business Rules

Workflow

Cloud Integration

Identity Authentication

SAP HANA service

DATACENTERS

Firewall

Secure tunnel

SAP ERP on-premise
Cloud Connector — SAP ERP on HANA

Secure tunnel

PROVE, ALS
databases on premises
Cloud Connector

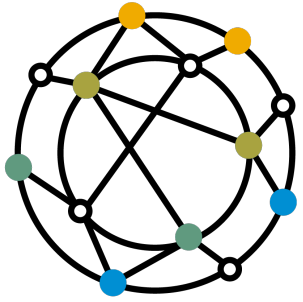**3rd PARTY CLOUD**
Geotab® Data

Development Efficiency

According to Gartner

80% of technology products will be built by non-technical people by 2024

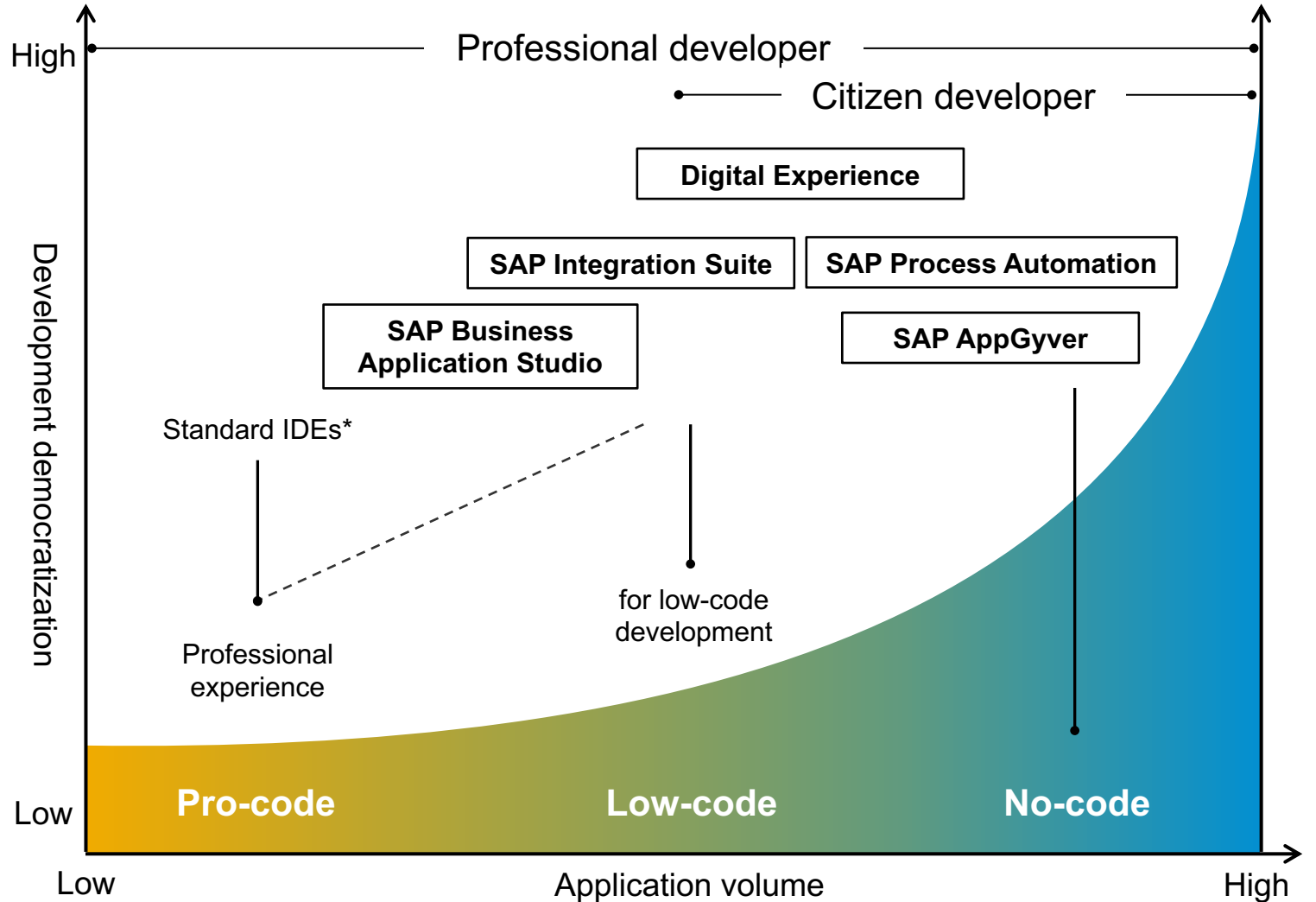How can you **empower business users, securely?**

What role to **pro-developers & IT play**?

Create a **unified developer experience** that allows every developer to build apps fast, no matter the skill level

Professional developer

Citizen developer

Digital Experience

SAP Integration Suite

SAP Process Automation

SAP Business Application Studio

SAP AppGyver

Standard IDEs*

for low-code development

Professional experience

Development democratization

High

Low

Pro-code

Low-code

No-code

Low

High

Application volume

* For example, VS code + extensions

SAP AppGyver and SAP Business Application Studio
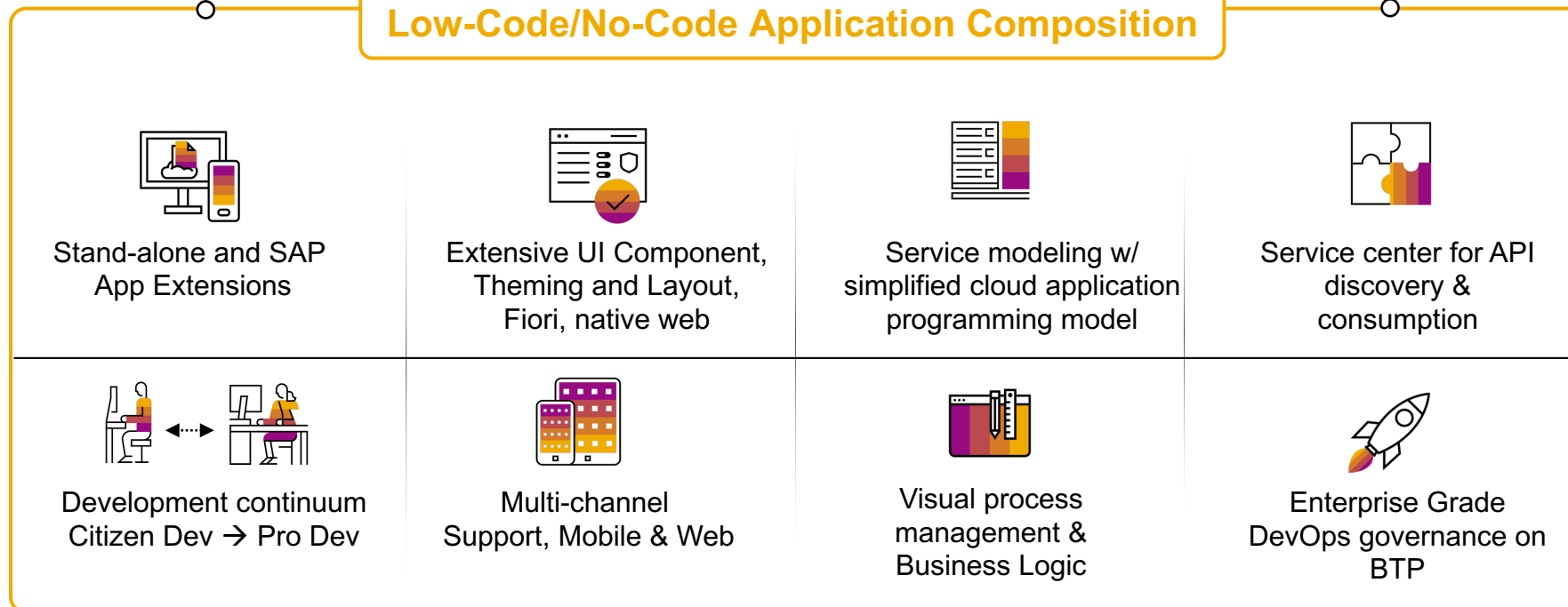## Boost Application Development with Low-Code/No-Code Capabilities

SAP AppGyver

Empowers business users and citizen developers to deliver pixel-perfect standalone apps and extensions in a full no-code composition environment

SAP Business Application Studio

Boosts development productivity for pro developers with a low-code experience based on the SAP opinionated technology (CAP, Fiori, UI5, HANA and more)
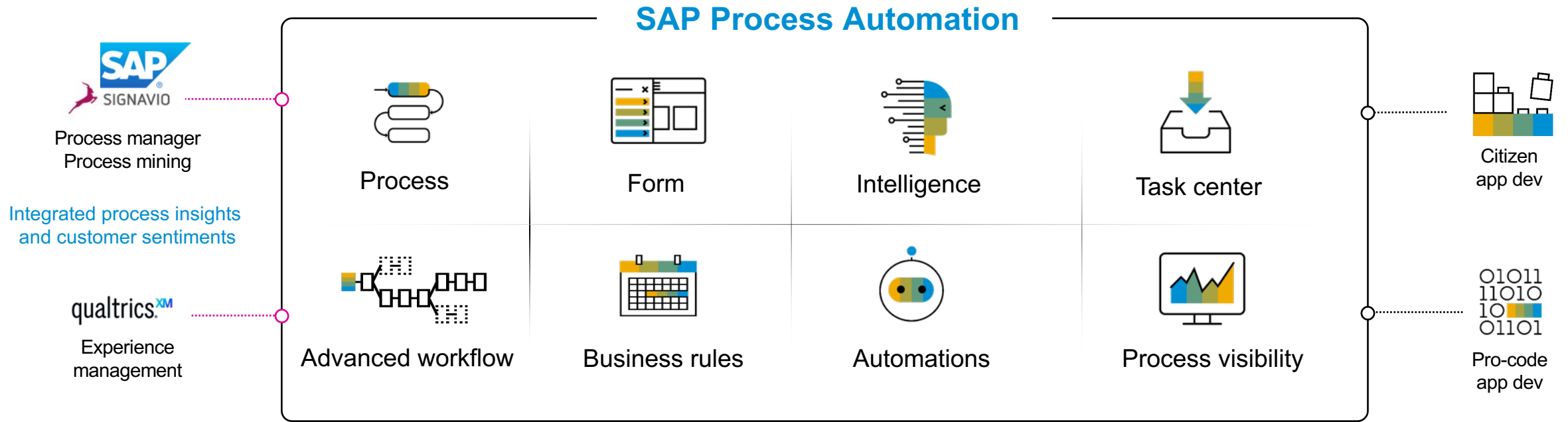
Low-Code/No-Code Application Composition

Stand-alone and SAP App Extensions

Extensive UI Component, Theming and Layout, Fiori, native web

Service modeling w/ simplified cloud application programming model

Service center for API discovery & consumption

Development continuum Citizen Dev → Pro Dev

Multi-channel Support, Mobile & Web

Visual process management & Business Logic

Enterprise Grade DevOps governance on BTP

Process Automation

SAP Process Automation

Capabilities: citizen automation for line-of-business builders

SAP Process Automation

SAP SIGNAVIO
Process manager
Process mining

Integrated process insights and customer sentiments

qualtrics.XM
Experience management

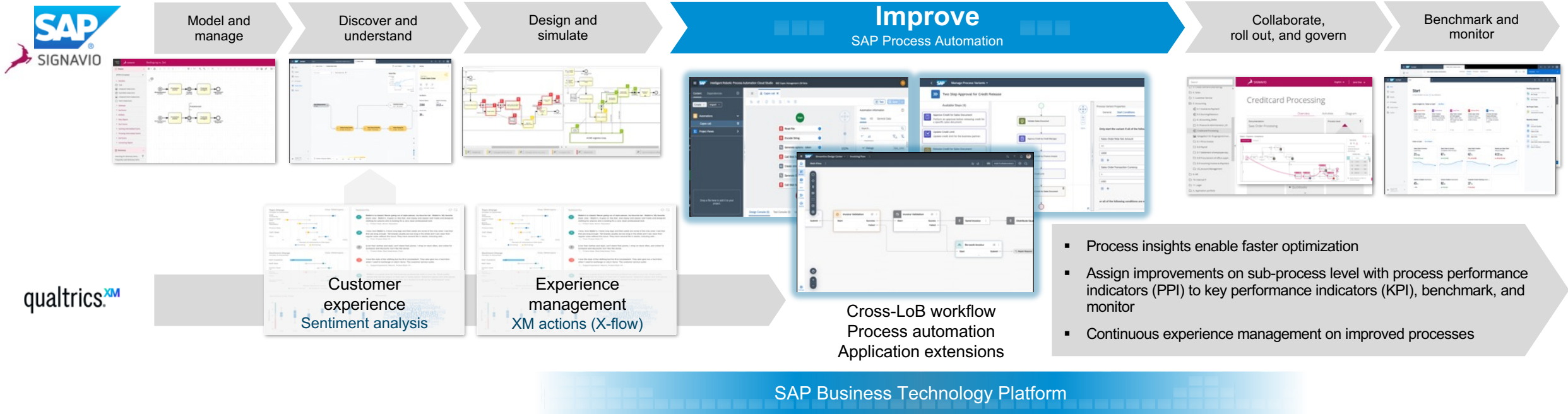|			
Process	Form	Intelligence	Task center
Advanced workflow	Business rules	Automations	Process visibility

Citizen app dev

Pro-code app dev

- New **citizen automation user experience** (process builder, forms builder)
- All **advanced workflow management** capabilities available (rules, process visibility, process flexibility, AI)
- Embedded **RPA capabilities** to readily combine bot automations with workflows
- Content and **reusable artifacts** (such as bots, workflow components, process steps, actions)
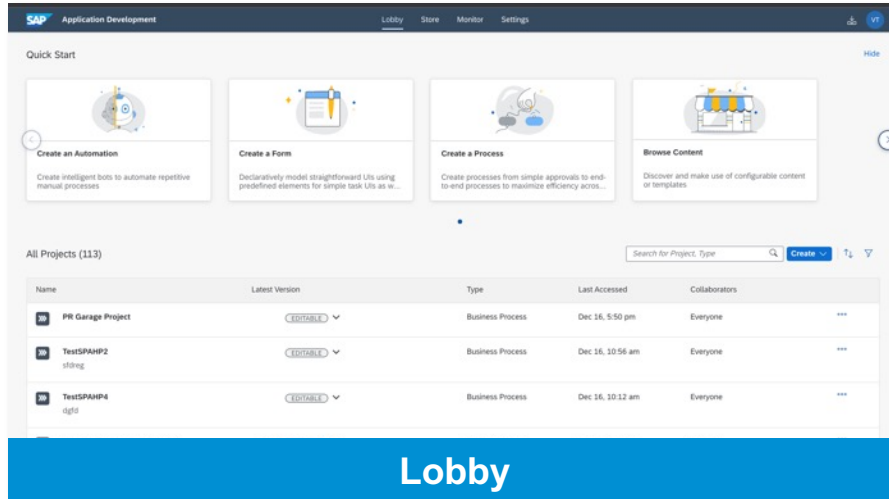- **Unified launchpad and task center** for citizen developer applications and automations

The end-to-end value of business process intelligence

From process insights and customer experience to process automation and improvement

Business process intelligence

SAP SIGNAVIO

| Model and manage | Discover and understand | Design and simulate | **Improve** SAP Process Automation | Collaborate, roll out, and govern | Benchmark and monitor |

qualtrics XM

Customer experience
Sentiment analysis

Experience management
XM actions (X-flow)

Cross-LoB workflow
Process automation
Application extensions

- Process insights enable faster optimization
- Assign improvements on sub-process level with process performance indicators (PPI) to key performance indicators (KPI), benchmark, and monitor
- Continuous experience management on improved processes

SAP Business Technology Platform

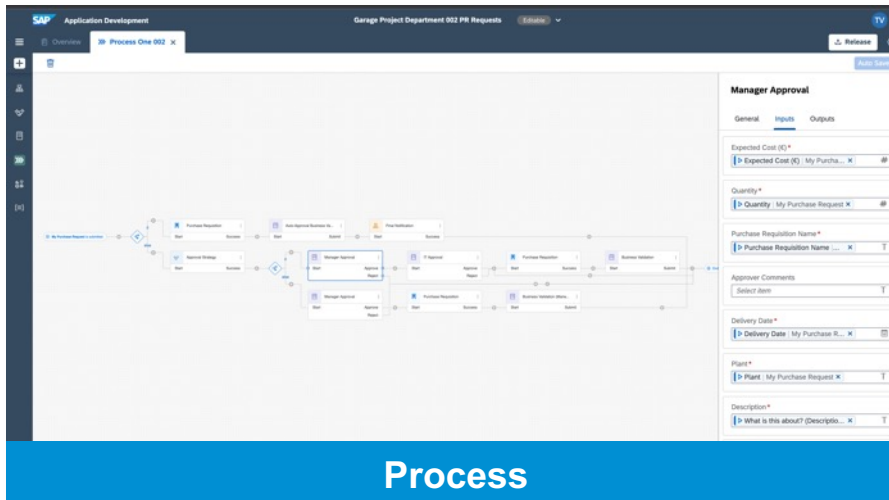# Citizen developer workflow and automation in ONE product experience

One Lobby across
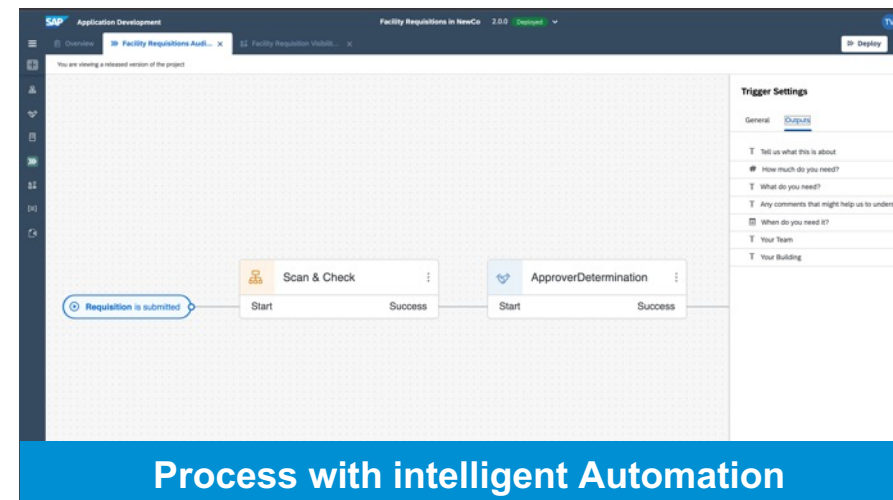Process Automation &
Application Development

Lobby
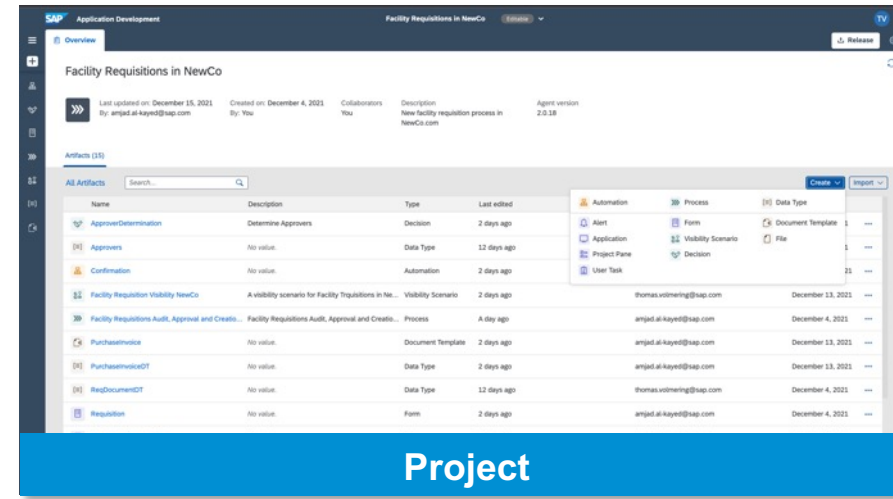
One Process Project
with a simple life cycle and
fast time to value across
all artifacts

Project

One Process Builder
combining Workflow steps
with Automations in a
simple intuitive language

Process

Embedded AI capabilities
with immersive modeling
experience to add intelligent
automations into process

**Process with intelligent Automation**

Accelerate business transformation with prebuilt content packages

Line of business

Industry

Shared services

Automations

Workflows

Dashboards

Forms

Skills
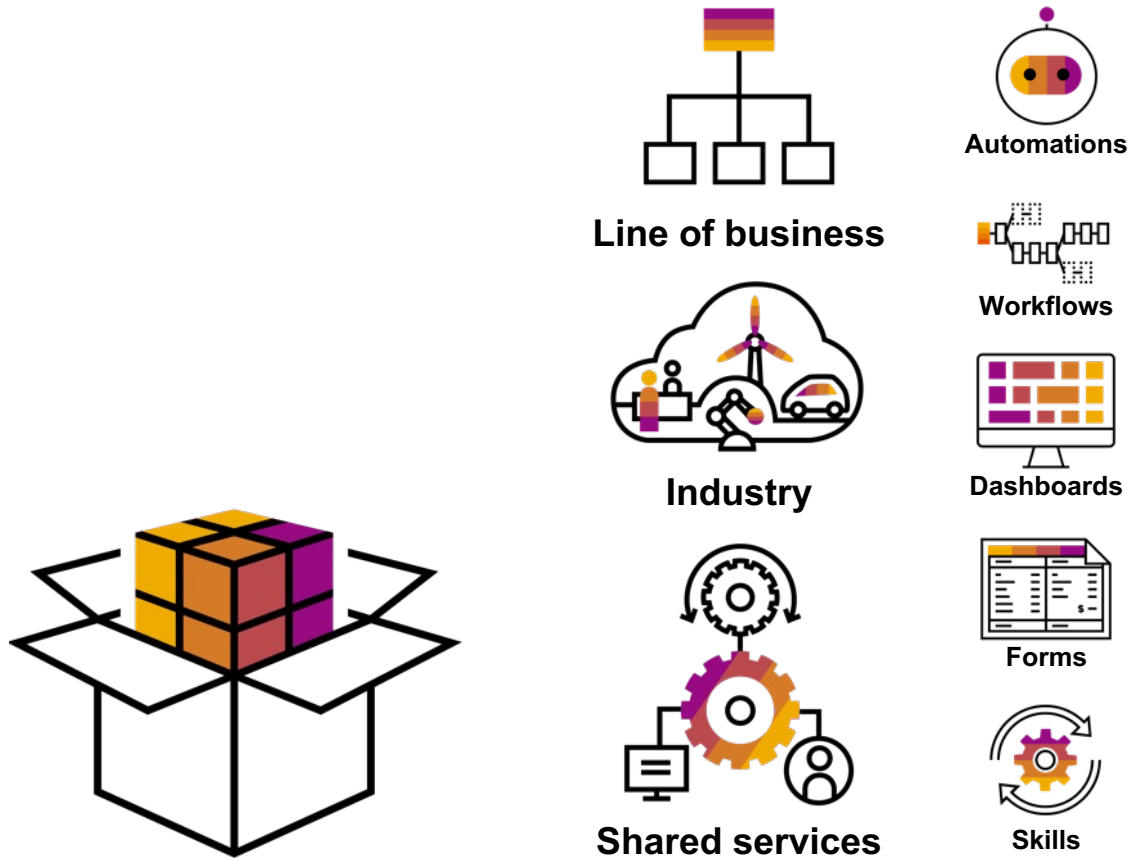
- **Jump-start automation development** while making use of **best practices**

- Select from a wide variety of **prebuilt, directly usable packages**
  - across lines of business
  - industries
  - shared functions

- Content ranges from
  - **templated automations** (bots)
  - **processes (**workflows**)**
  - **process visibility dashboards**
  - **form** templates
  - **actions** (called skills)

  to **complete automation packages combining artifacts**

iRPA Pre-built Content Store

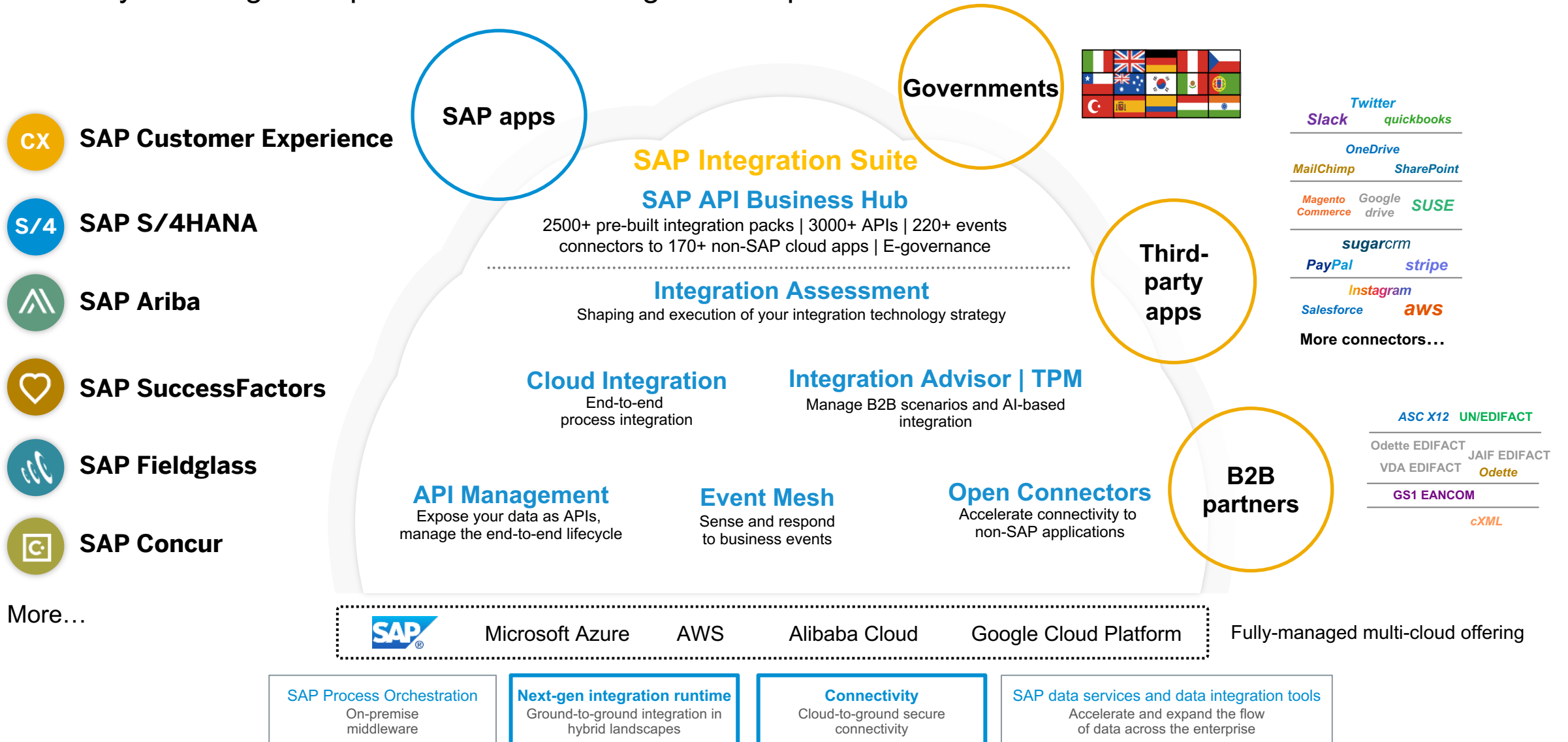# **Integration Suite** - The Hybrid Integration Platform for Intelligent Enterprises
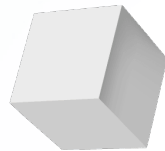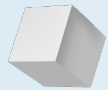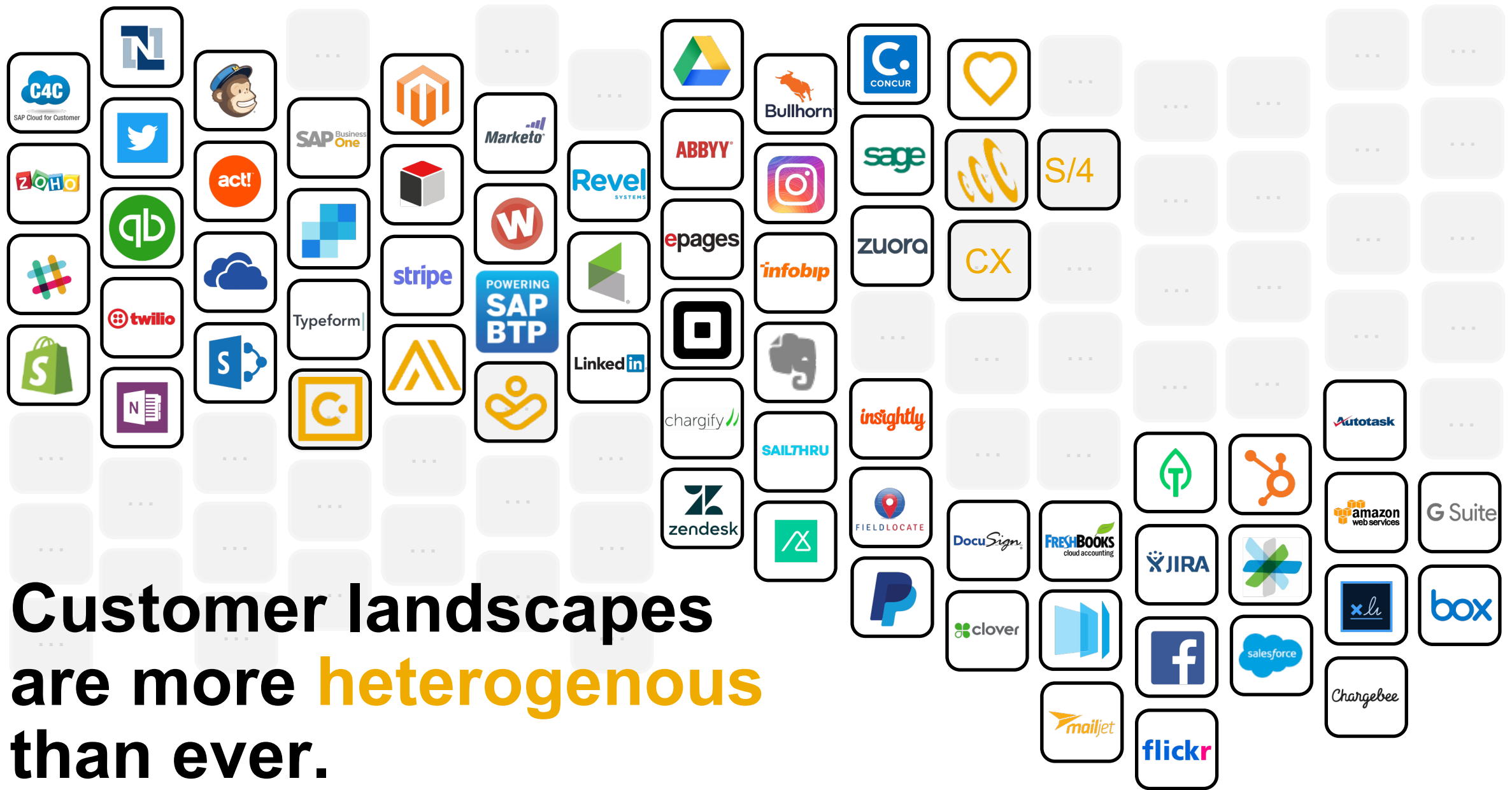
Customer landscapes are more **heterogenous** than ever.

Integration at SAP

SAP's hybrid integration platform for the Intelligent Enterprise

SAP Customer Experience

SAP S/4HANA

SAP Ariba

SAP SuccessFactors

SAP Fieldglass

SAP Concur

More…

SAP apps

Governments

SAP Integration Suite

SAP API Business Hub

2500+ pre-built integration packs | 3000+ APIs | 220+ events
connectors to 170+ non-SAP cloud apps | E-governance

Integration Assessment
Shaping and execution of your integration technology strategy

Cloud Integration
End-to-end
process integration

Integration Advisor | TPM
Manage B2B scenarios and AI-based
integration

API Management
Expose your data as APIs,
manage the end-to-end lifecycle

Event Mesh
Sense and respond
to business events

Open Connectors
Accelerate connectivity to
non-SAP applications

Third-party apps

Twitter
Slack   *quickbooks*
OneDrive
MailChimp   *SharePoint*
Magento Commerce   *Google drive*   *SUSE*
sugarcrm
PayPal   *stripe*
Instagram
Salesforce   *aws*

More connectors…

B2B partners

ASC X12   **UN/EDIFACT**
Odette EDIFACT   **JAIF EDIFACT**
VDA EDIFACT   *Odette*
GS1 EANCOM
cXML

SAP   Microsoft Azure   AWS   Alibaba Cloud   Google Cloud Platform   Fully-managed multi-cloud offering

SAP Process Orchestration
On-premise
middleware

Next-gen integration runtime
Ground-to-ground integration in
hybrid landscapes

Connectivity
Cloud-to-ground secure
connectivity

SAP data services and data integration tools
Accelerate and expand the flow
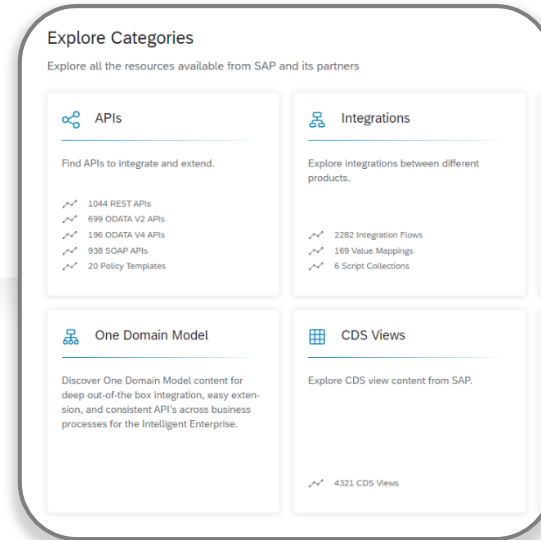of data across the enterprise

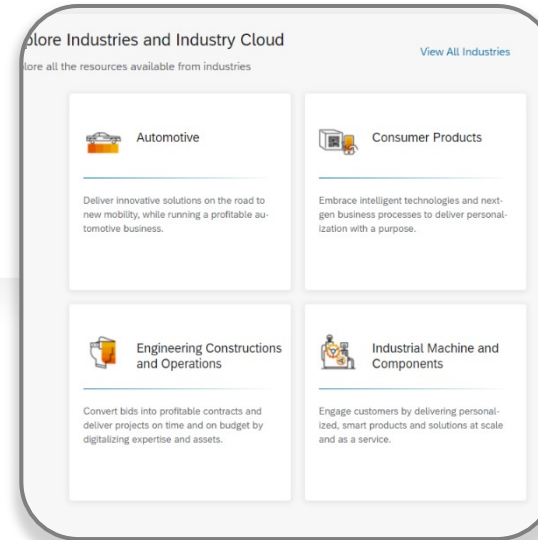# Streamline any-to-any, SAP and third-party integrations

Central catalog: SAP API Business Hub @ api.sap.com
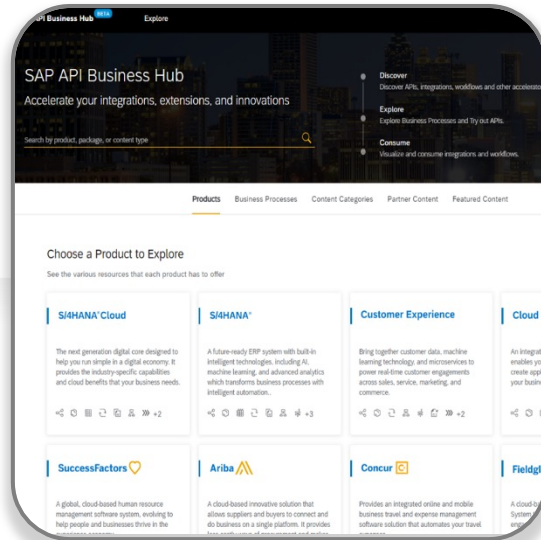
Public catalog
to discover and consume prebuilt integrations and connectors

Content categories
2500+ Prebuilt integrations
3000+ APIs
220+ Business events
170+ Connectors to third-party apps

Content clustering
for easy navigation and search, e.g. for **industry clouds, communities**

Partners*
list and engage with customers

Value = 5x acceleration, 10x savings

Partner with SAP to connect and automate your business

15,000+
SAP Integration Suite customers

2,500+
Pre-built Integrations to accelerate integrations

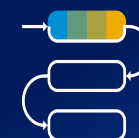**2800+**
Ready to use APIs in SAP API Business Hub

Billions
API calls per month across all SAP Integration Suite tenants

Billions
Messages processed per month across all SAP Integration Suite tenants

900+
Largest number of Integration Flows deployed by a single customer on a single tenant

Next Steps with SAP Integration Suite

Achieve
seamless business processes efficiently at scale

Modernize
integration with confidence

Accelerate
connectivity with business expertise
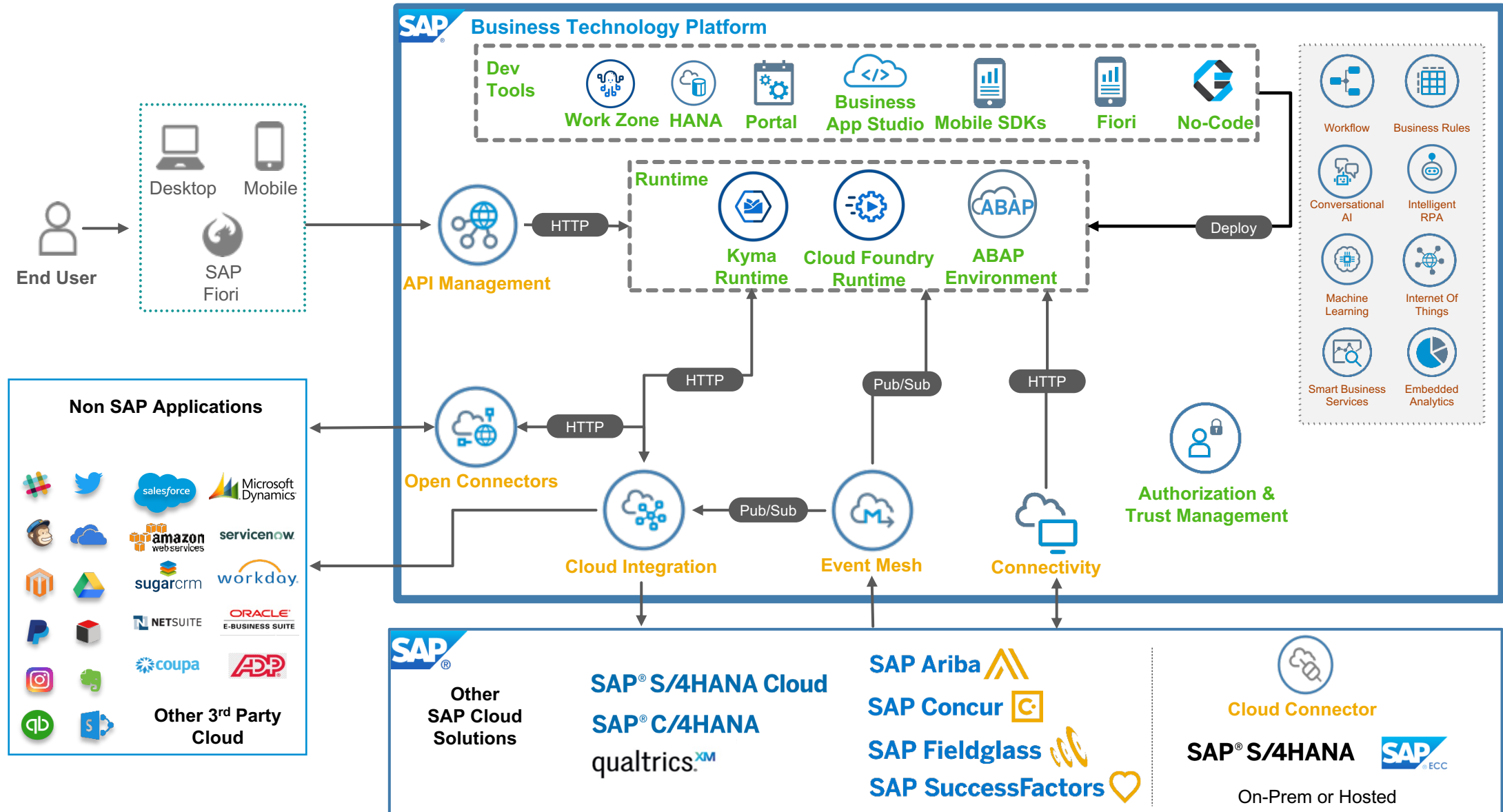
Learn more on SAP.com

Download the Gartner Magic Quadrant report

Hear from your peers

Get hands-on with SAP Integration Suite

Discover APIs and other integrations assets

SAP BTP App Dev and Integration Framework

Thank you.

Contact information:

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