



# Utilize SAP Build Code For Building Faster And More Flexible Solutions

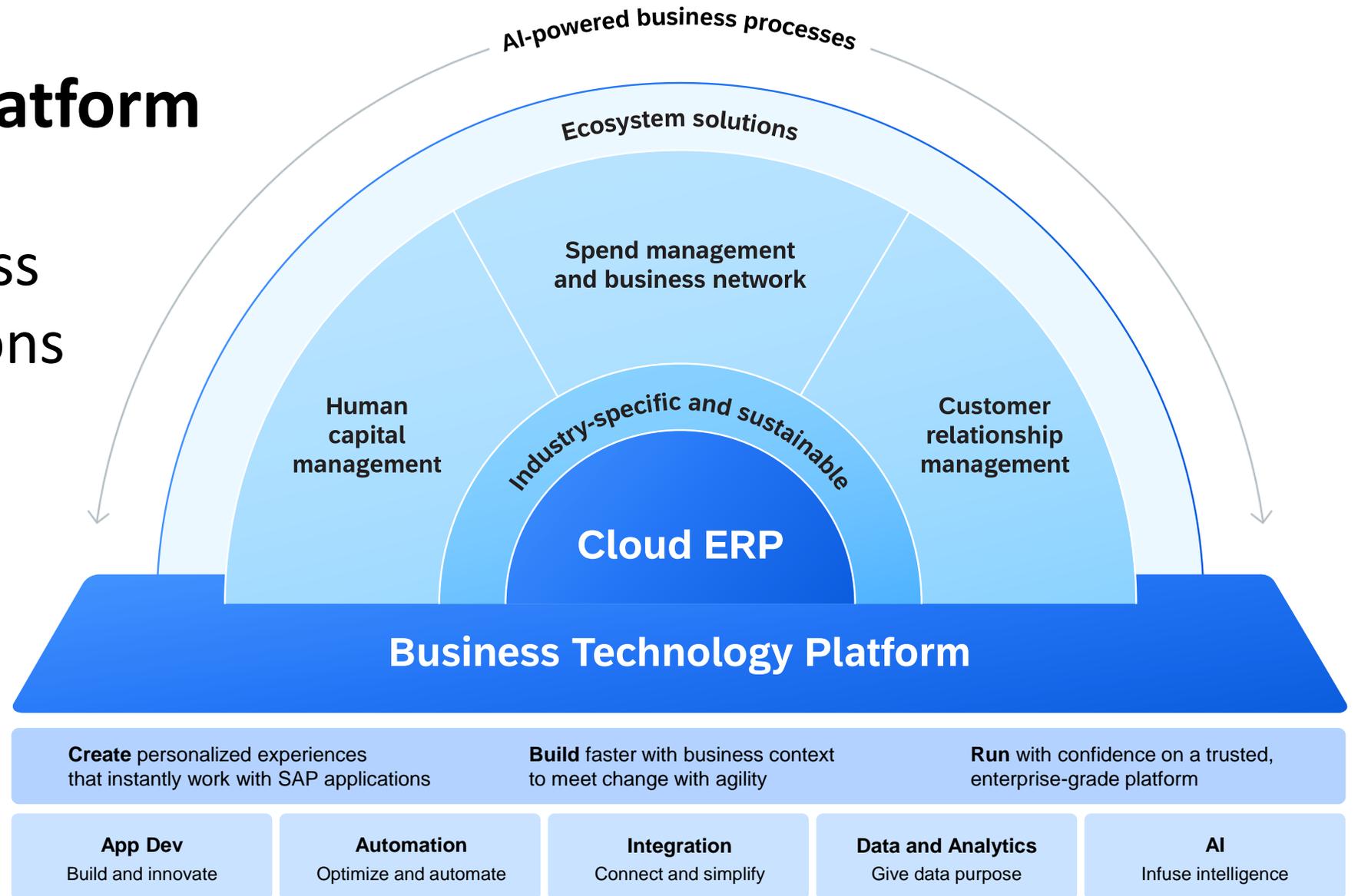
**Tim Back, SAP**

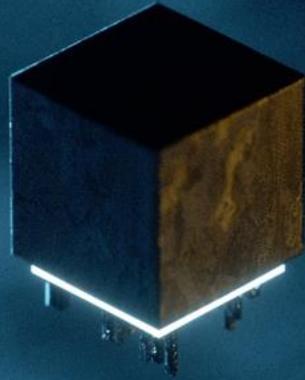
**Sami Lechner, SAP**

**SAP**insider  
2023

# SAP Business Technology Platform

Unleash digital  
innovation across  
business functions

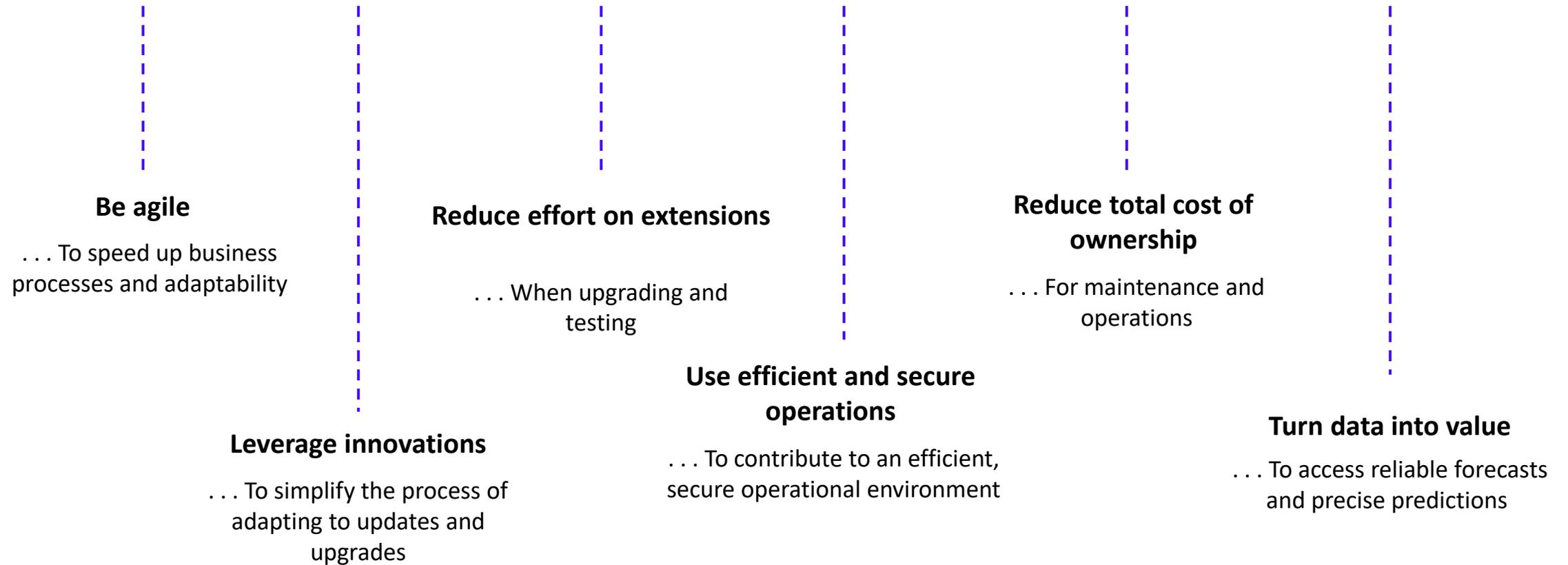




A “**core**” forms the foundation of IT's power to supercharge strategic success.

“**Clean**” means up-to-date, documented, efficient, and cloud compliant.

# A clean core makes it possible to adapt the system to changing business requirements.



Software stack

Processes

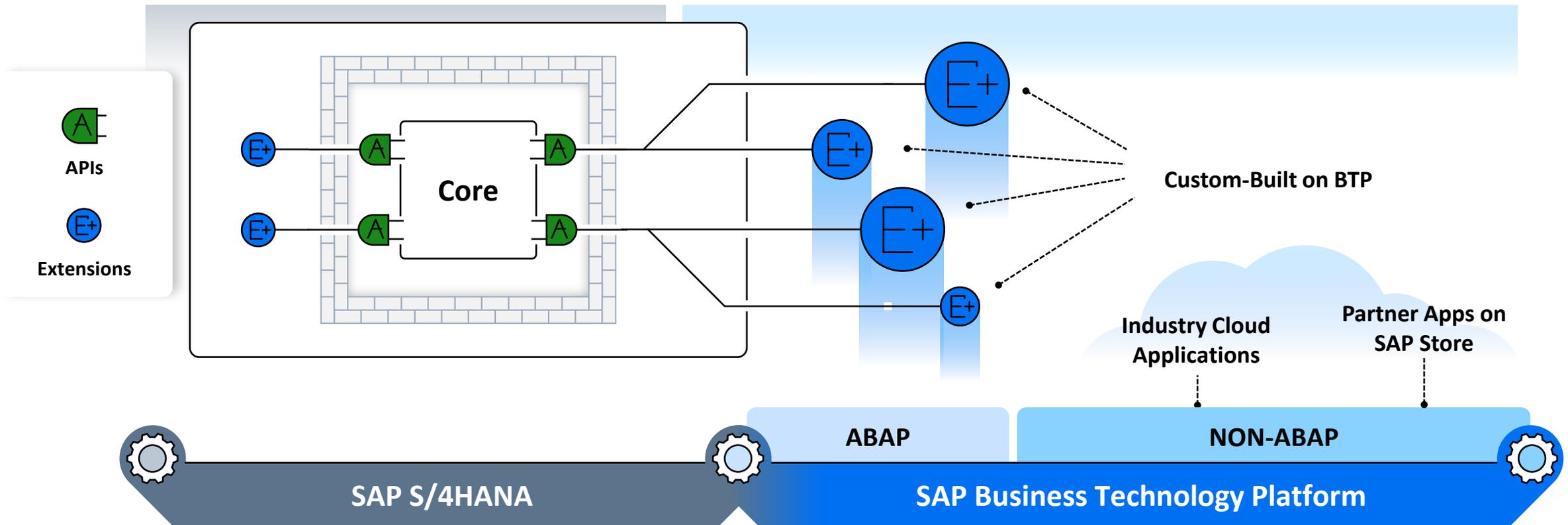
Data

**Extensibility**

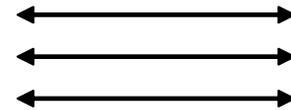
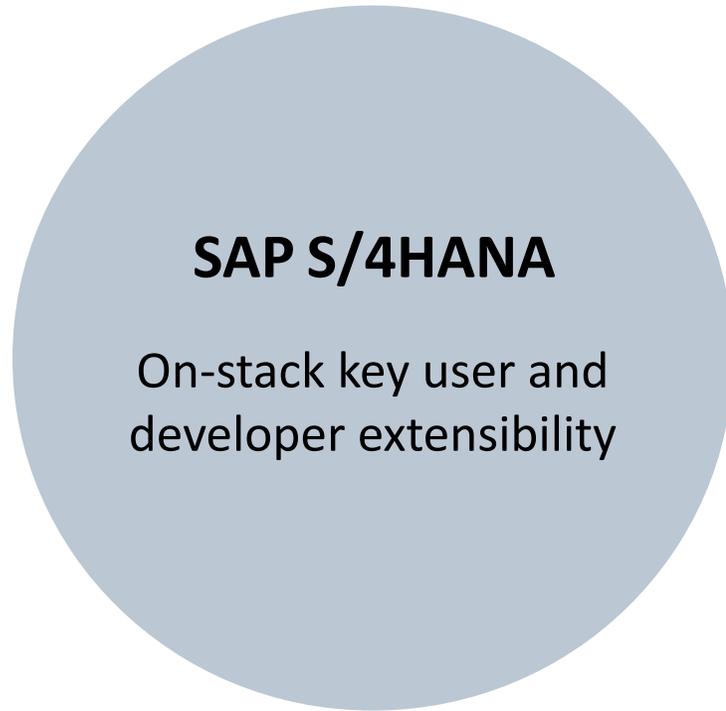
Integrations

Operations

# The concept of a clean core is the essential key to boundless extensibility



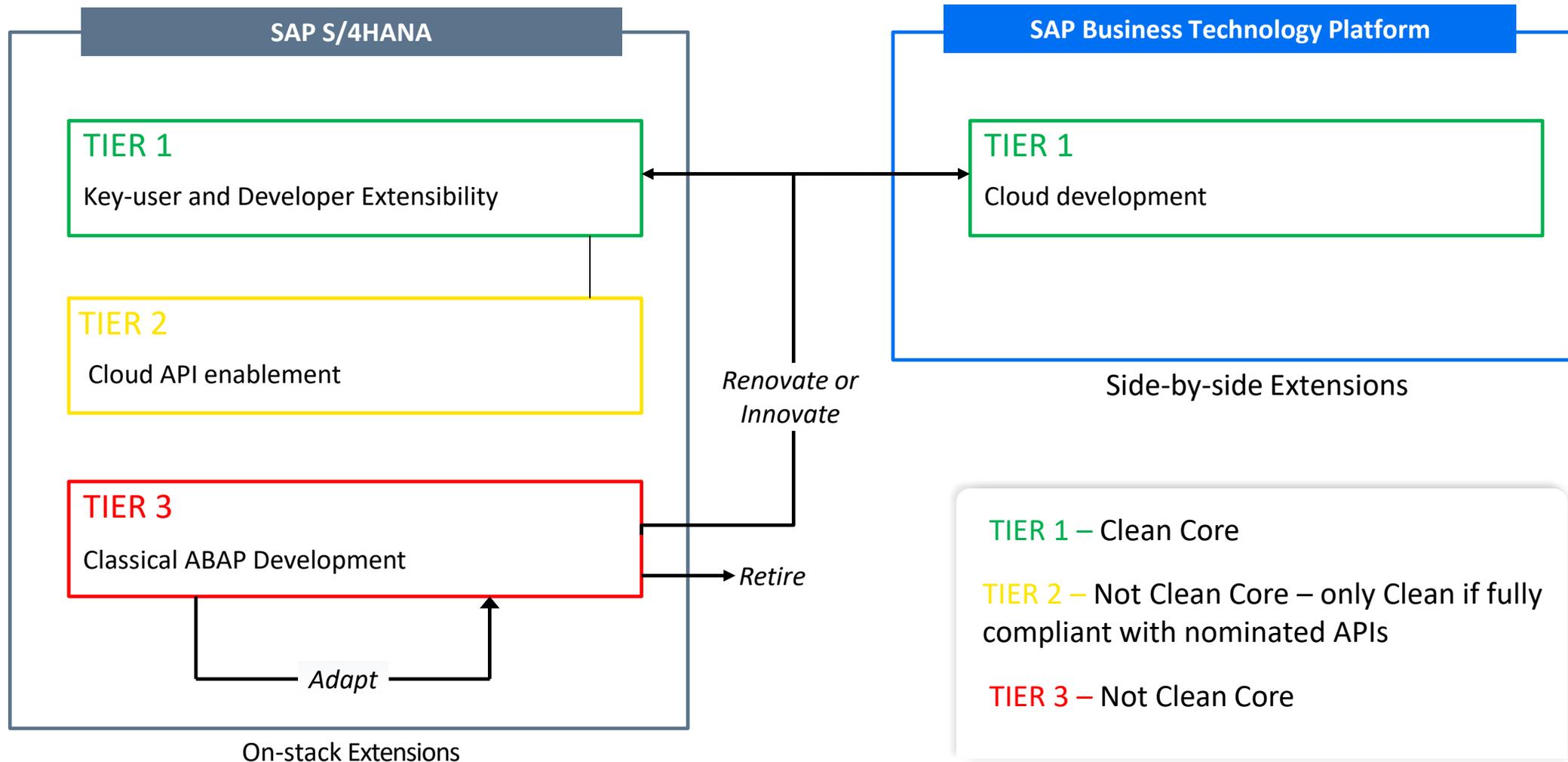
**Build cloud-ready architectures of your extensions in a clean core fashion**



**Not clean core**  
Classic extensibility with  
ABAP development tools

A red-bordered box containing the text 'Not clean core' and 'Classic extensibility with ABAP development tools'.

# The three-tier extensibility model presents a practical and efficient path to a cleaner core

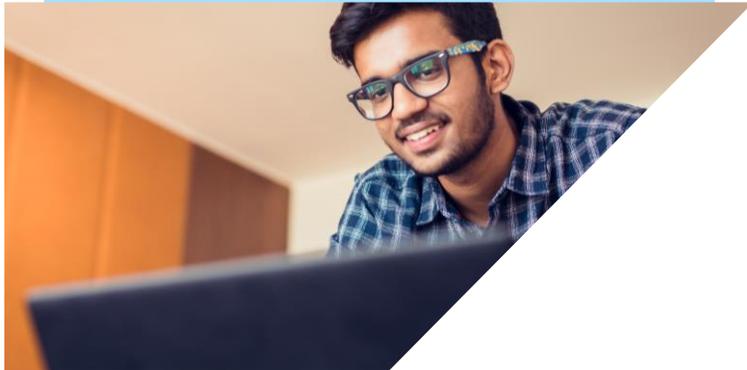


# Extensibility with SAP Build Code

# SAP Build Code

AI code generation with Joule copilot, optimized for Java and JavaScript application development

Build rapidly with AI code generation



Generative AI-powered app development

Turnkey environment for coding, testing, integrations, and application lifecycle management

Guided experiences and prebuilt templates to quickly build full-stack, back-end, and mobile apps

Gain tailored functionality for SAP solution development



Prebuilt integration with SAP and third-party solutions

Trusted, enhanced security for authentication, authorization, and data protection

Extensibility for SAP S/4HANA and other solutions

Enhance fusion development

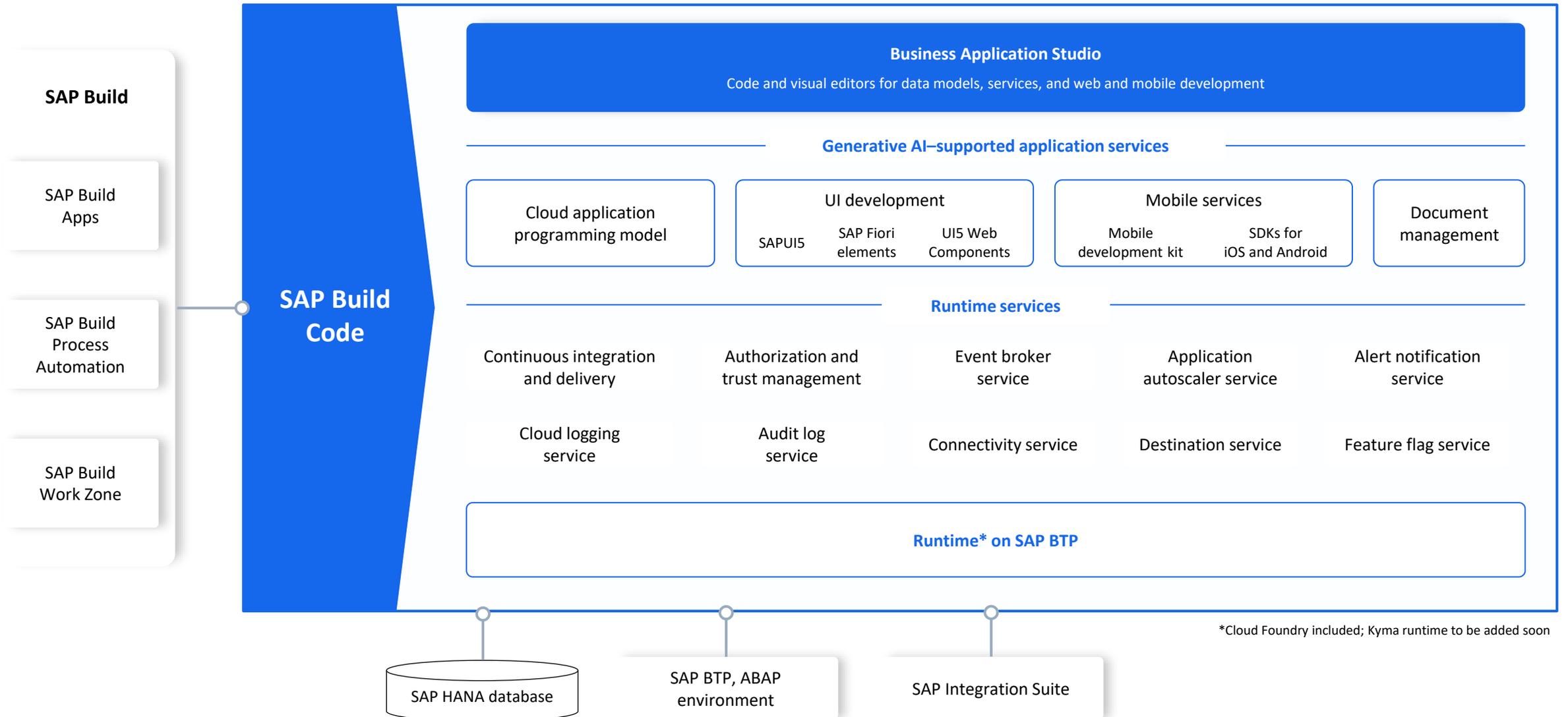


More-secure collaboration between professional and citizen developers

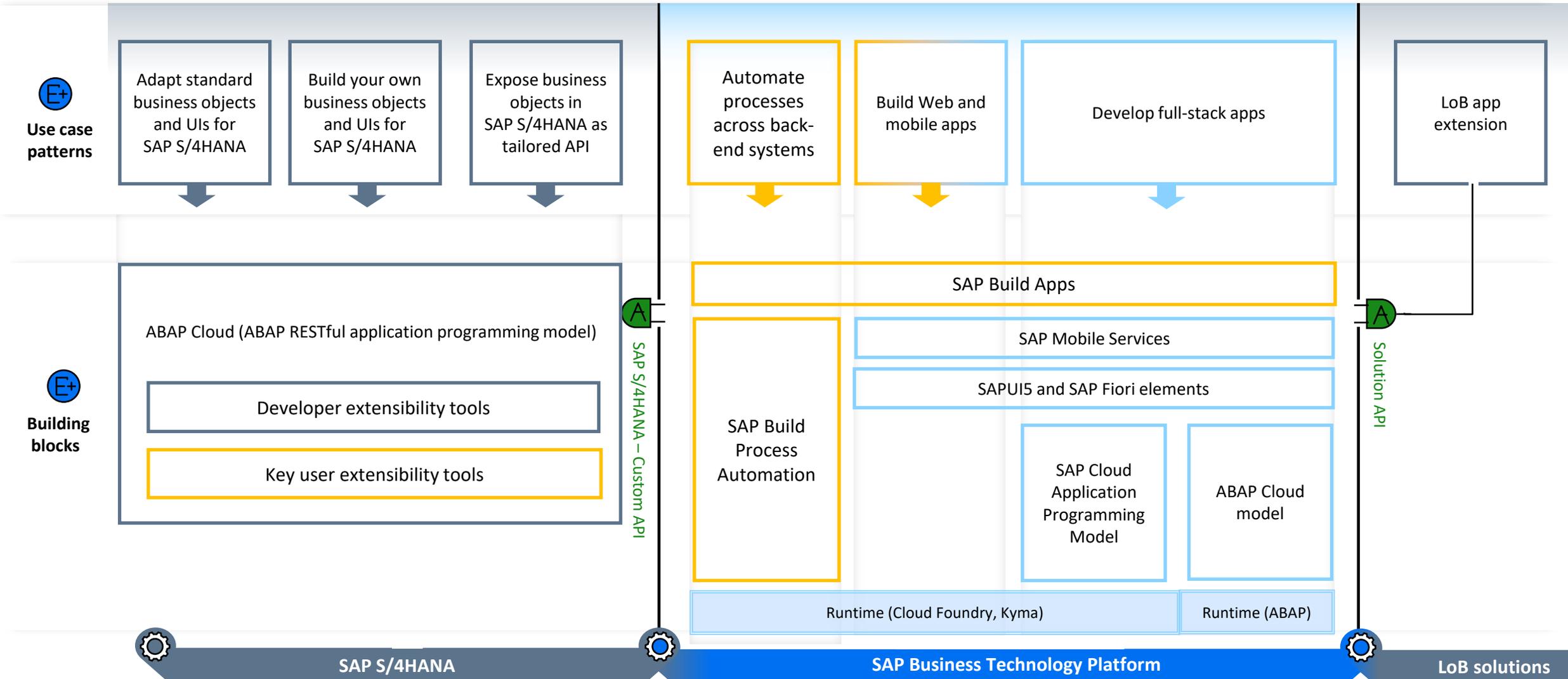
App composability across SAP Build and ABAP-developed solutions

Unified governance and simplified application lifecycle management

# SAP Build Code: What you need to follow, best practices of SAP

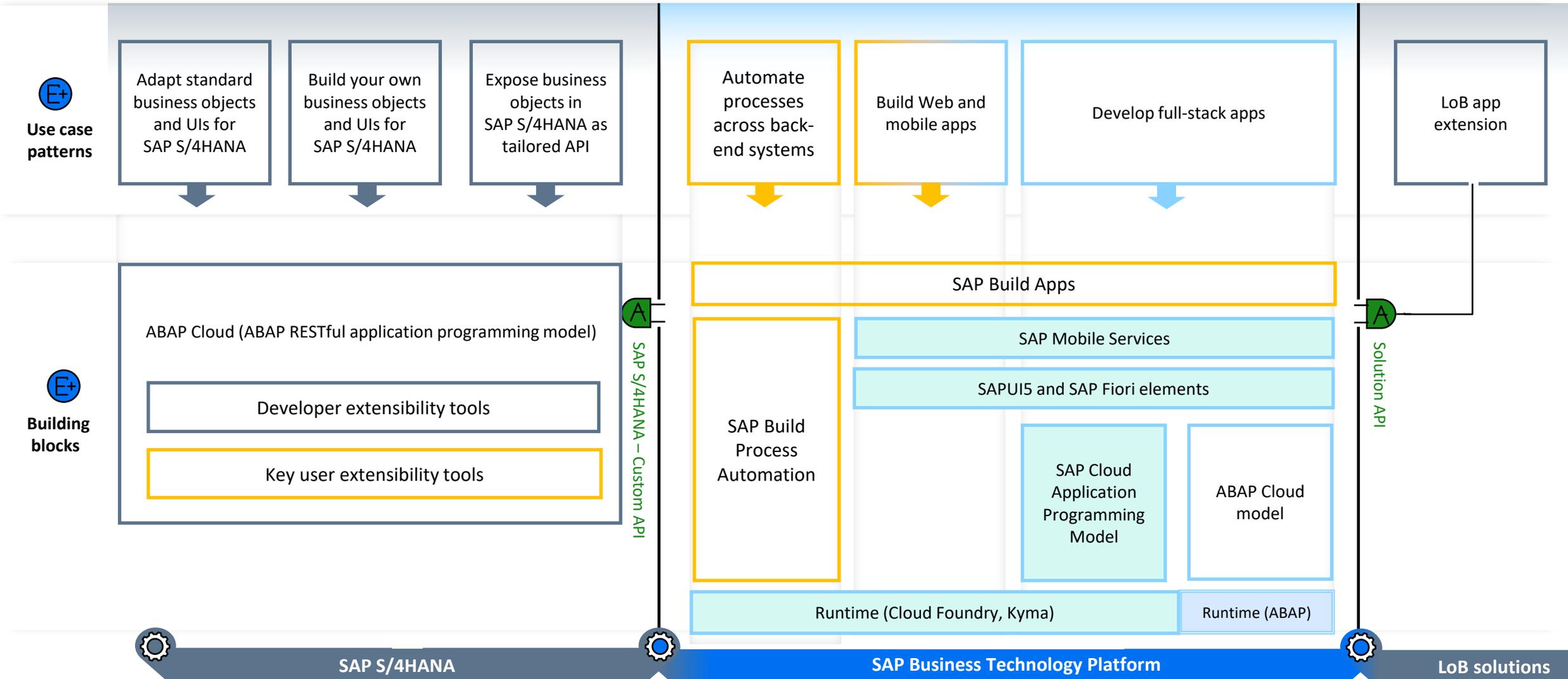


# SAP offers extensibility of different styles to fit to our customer's needs



Business, key user
  Developer

# SAP offers extensibility of different styles to fit to our customer's needs



**Use case patterns**

- Adapt standard business objects and UIs for SAP S/4HANA
- Build your own business objects and UIs for SAP S/4HANA
- Expose business objects in SAP S/4HANA as tailored API

**Building blocks**

- ABAP Cloud (ABAP RESTful application programming model)
  - Developer extensibility tools
  - Key user extensibility tools

- Automate processes across back-end systems
- Build Web and mobile apps
- Develop full-stack apps

- SAP Build Apps
- SAP Mobile Services
- SAPUI5 and SAP Fiori elements
- SAP Build Process Automation
- SAP Cloud Application Programming Model
- ABAP Cloud model
- Runtime (Cloud Foundry, Kyma)
- Runtime (ABAP)

- LoB app extension

SAP S/4HANA – Custom API

Solution API

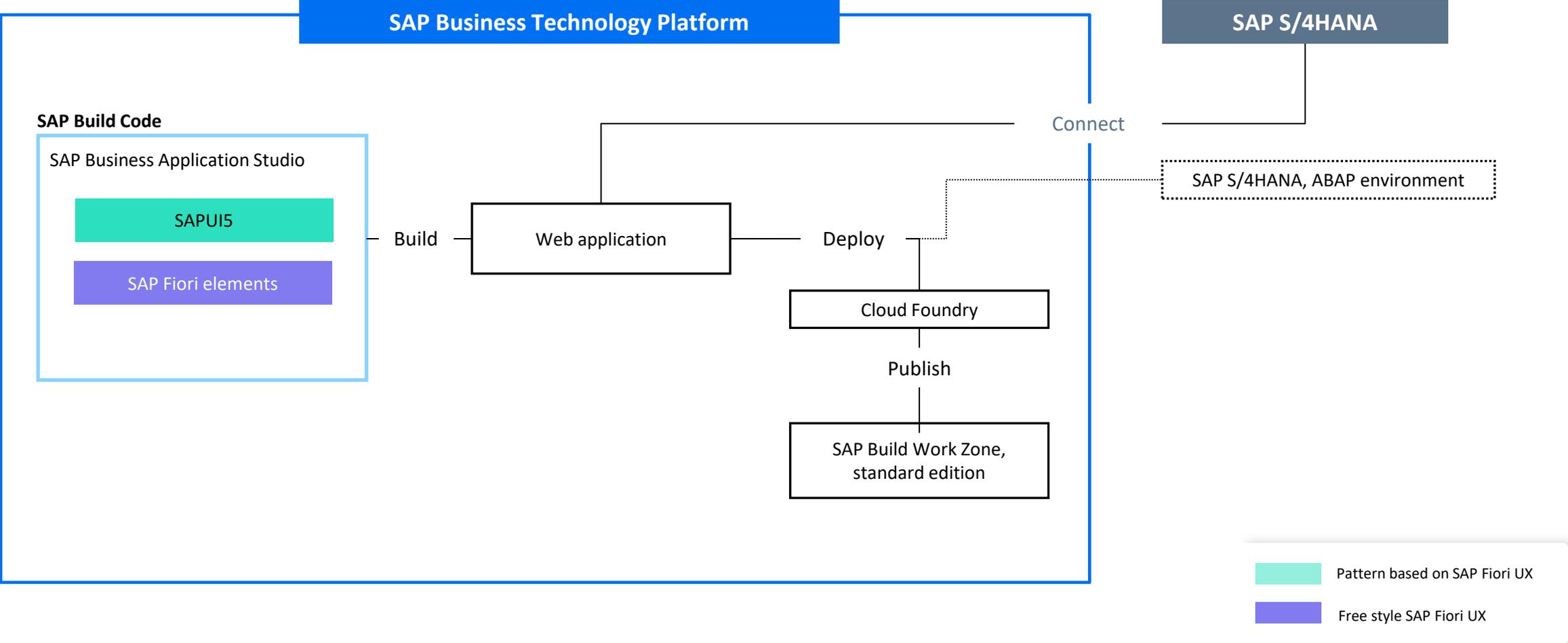
SAP S/4HANA

SAP Business Technology Platform

LoB solutions

Business/ Key user
  Developer
  SAP Build Code

# Build Web applications with SAP Build Code



# SAPUI5

Flexibility

Anything you want

Web development  
(JavaScript, HTML)

Own coding, own UI logic

Higher

Overall approach

Design requirements

Development knowledge

App ownership, maintenance

Total cost of ownership

# SAP Fiori elements

Efficiency

Standard floor plans

Annotations  
(XML, wizards, development guides)

Own annotation, SAP's UI logic

Lower

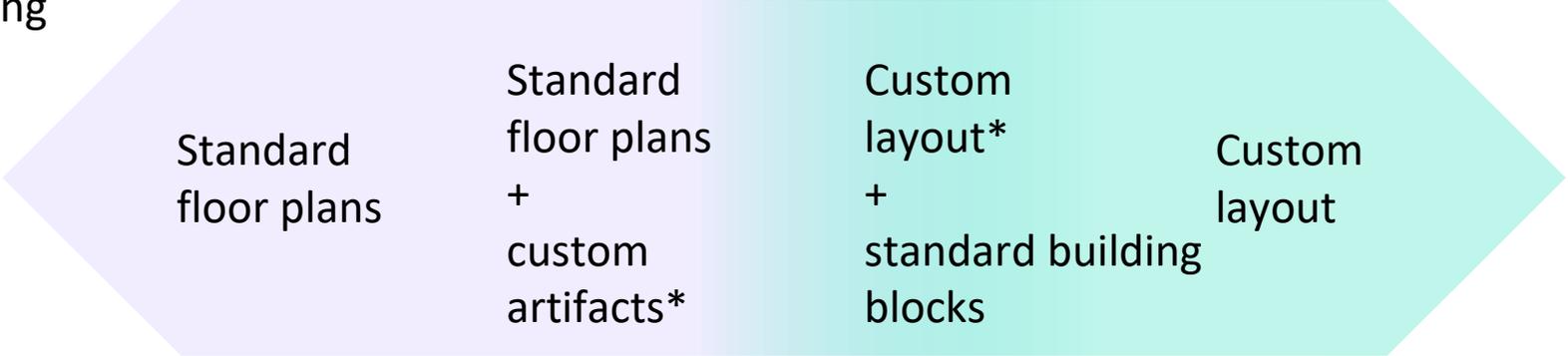
# Flexible programming model blends SAP Fiori elements and SAPUI5 freestyle

Developers have a continuum of options instead of an either/or decision.

**SAP Fiori elements**  
Metadata-driven  
development using  
annotations

**SAPUI5 freestyle**  
JavaScript framework  
and UI library

## Flexible programming model

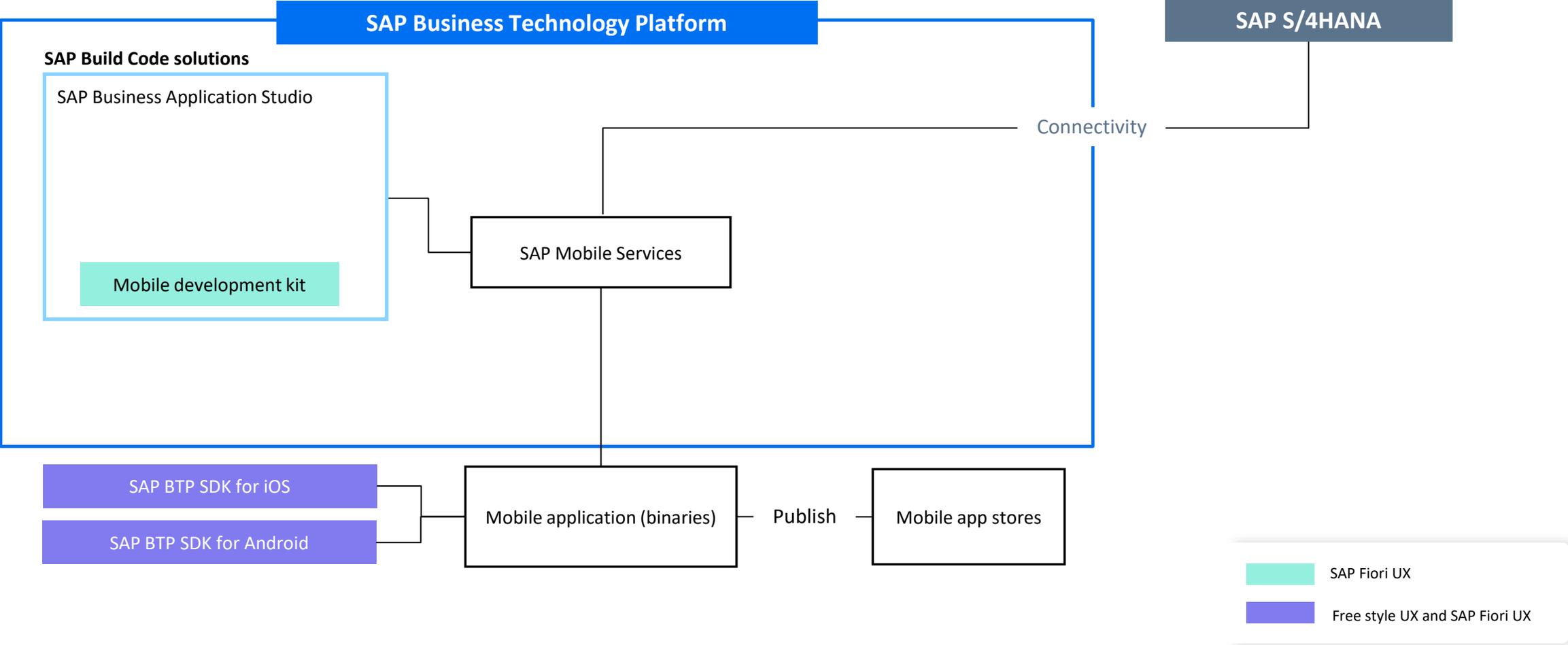


*Efficiency*

*Flexibility*

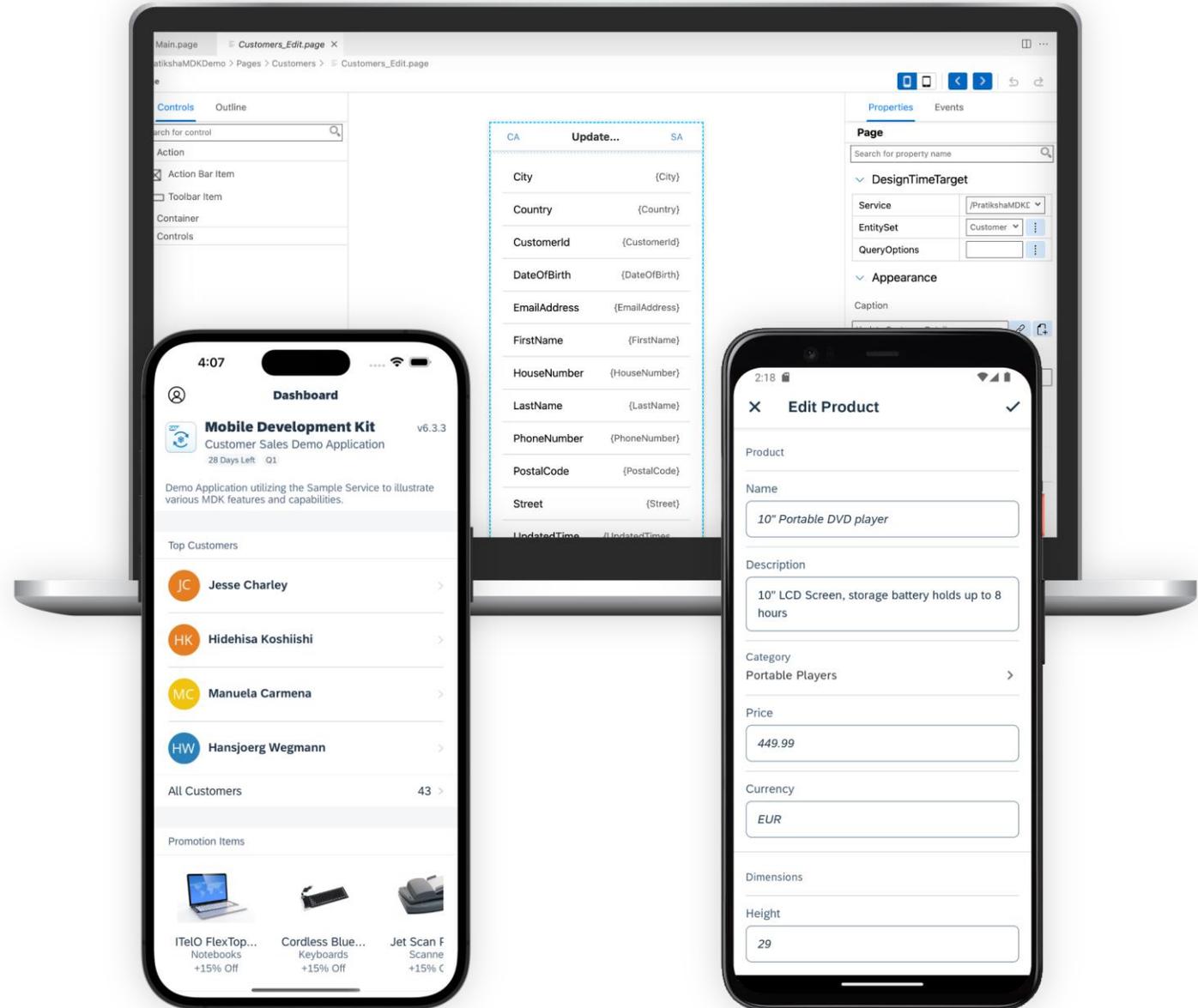
\*Leveraging standard building blocks and SAPUI5 controls and custom code

# Build mobile applications with SAP Build Code



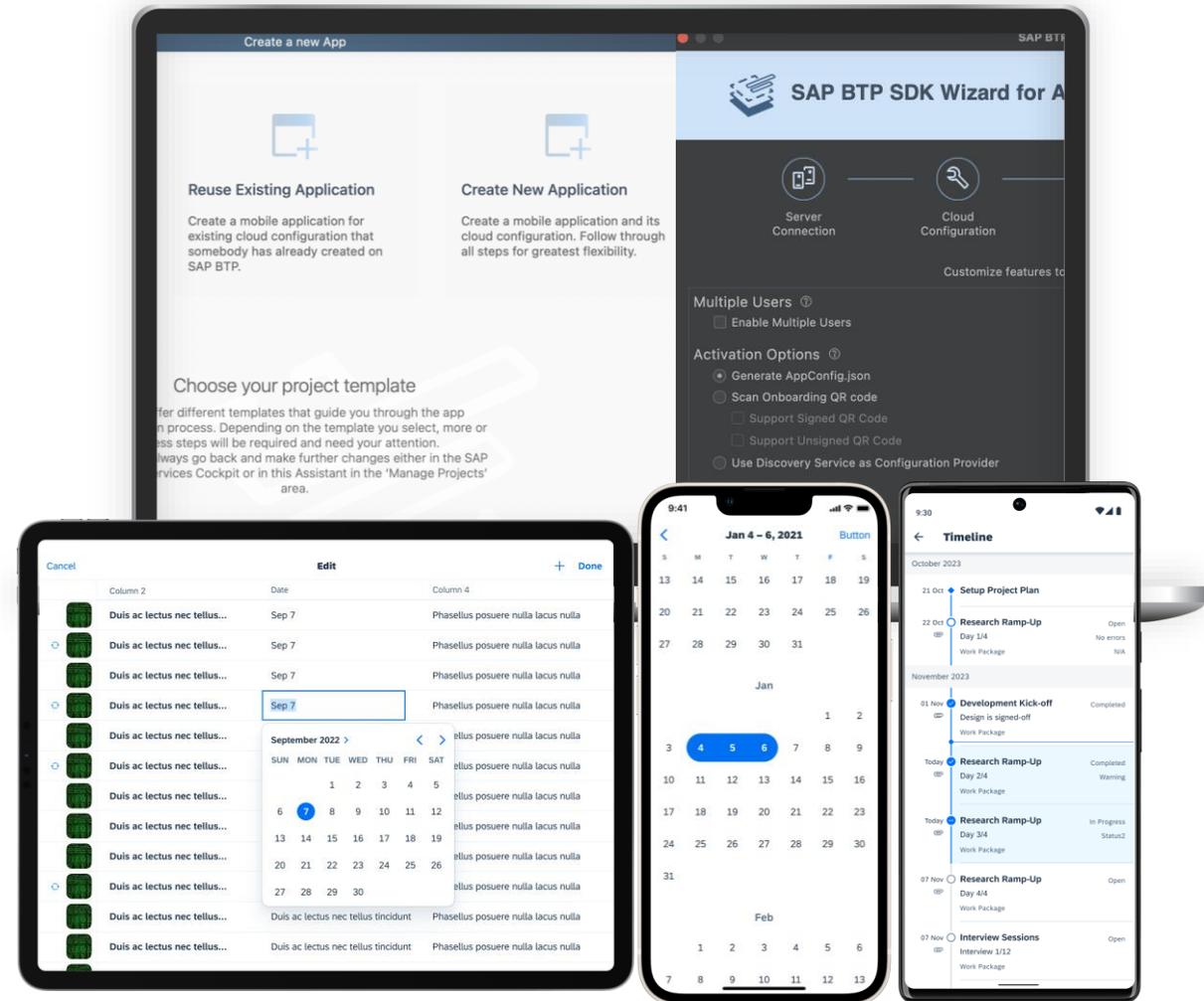
# Mobile development kit

- ✓ Multichannel applications: develop once, deploy on iOS and Android
- ✓ Guidelines for the SAP Fiori design system
- ✓ Instant distribution

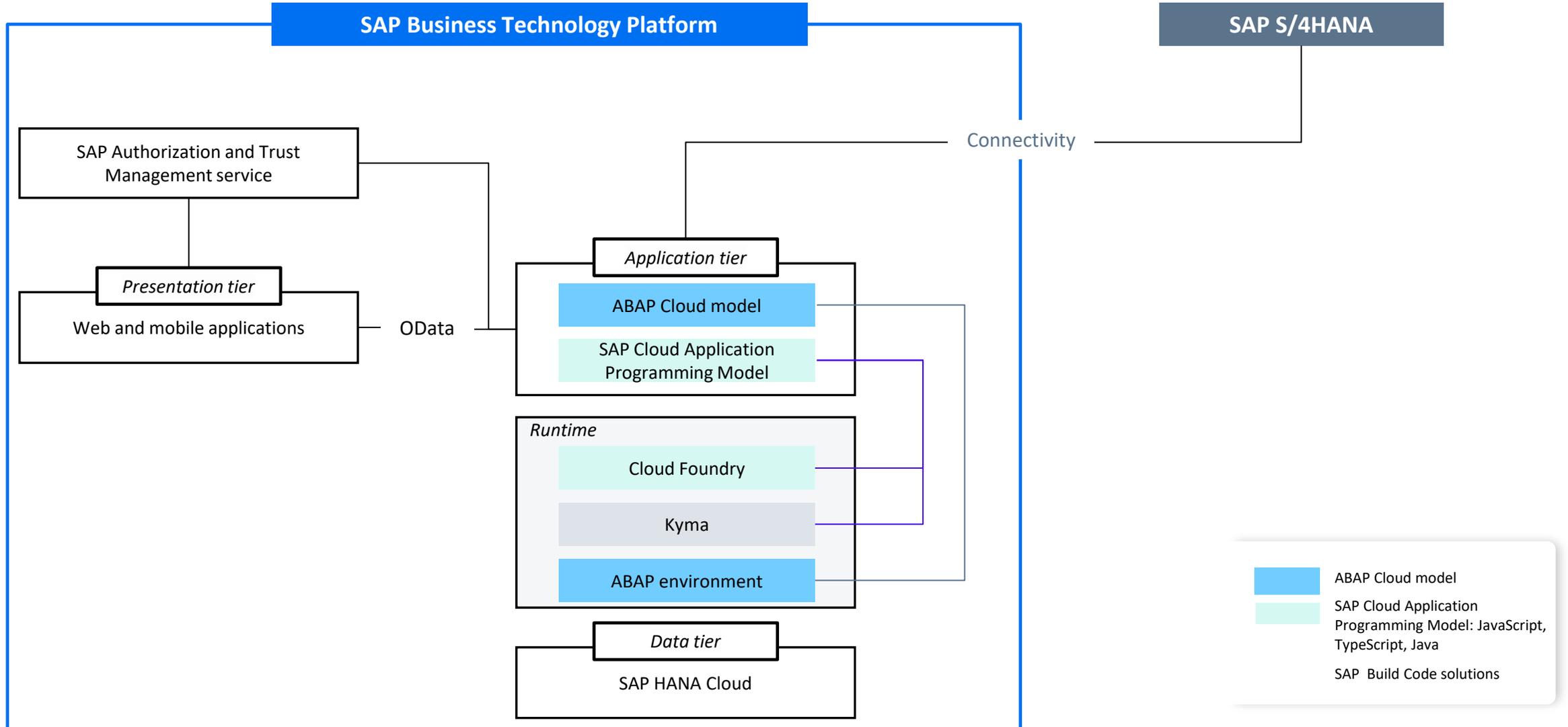


# SAP BTP SDKs for iOS and Android

- ✓ Leverages SAP Fiori UX, and is compliant with platform-specific guidelines (Material Design, Human Interface Guidelines)
- ✓ Complete control over app performance even with large data sets
- ✓ Deep integration with device and 3rd party hardware
- ✓ Distribution through Apple App Store and Google Play Store



# Develop full-stack applications



# SAP Cloud Application Programming Model with SAP Build Code

## Simplified development and higher developer productivity

- Focus on application domain
- Reducing boilerplate code
- Following enterprise best practices

## Safeguarding IT investments

- Future-proofing your development projects
- No lock-in effect through abstraction layer
- Minimizing risks associated with technology changes

## Intrinsic cloud qualities

- Multitenancy
- Extensibility
- Cloud security
- Scalability
- Messaging
- Observability
- Resilience

# Demo: Full-stack extension with SAP Build Code solutions

# Thank you! Questions?

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# SAPinsider



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