



Integration & The Path to the Intelligent Enterprise

Kathrin Heyd, SAP SE

Technology & Innovation | Central Engineering | Intelligent Enterprise Program

 @HeyKathrin

PUBLIC

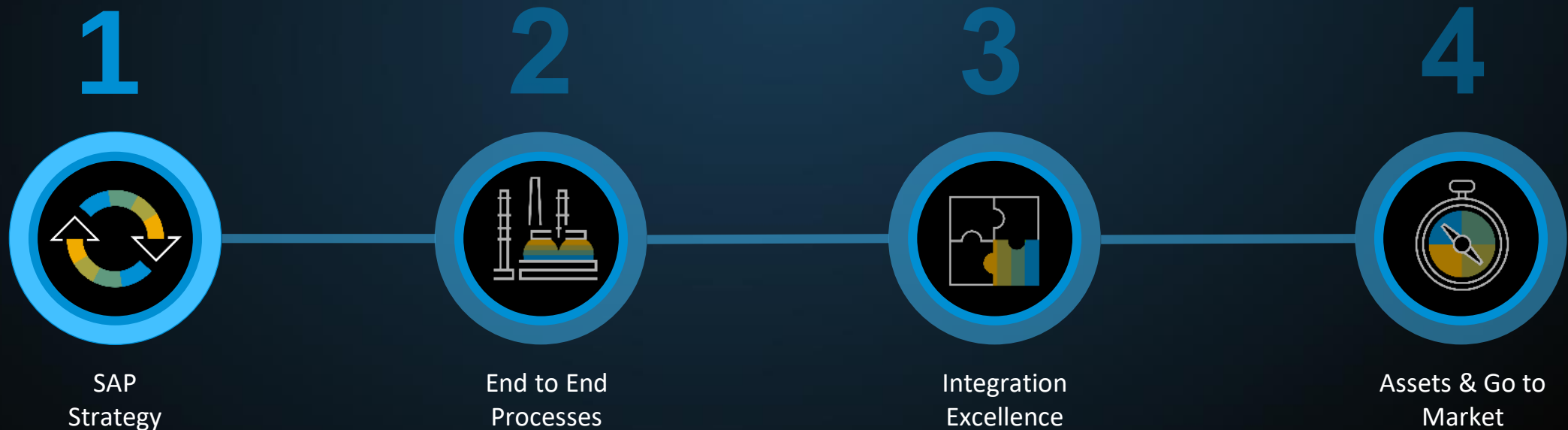
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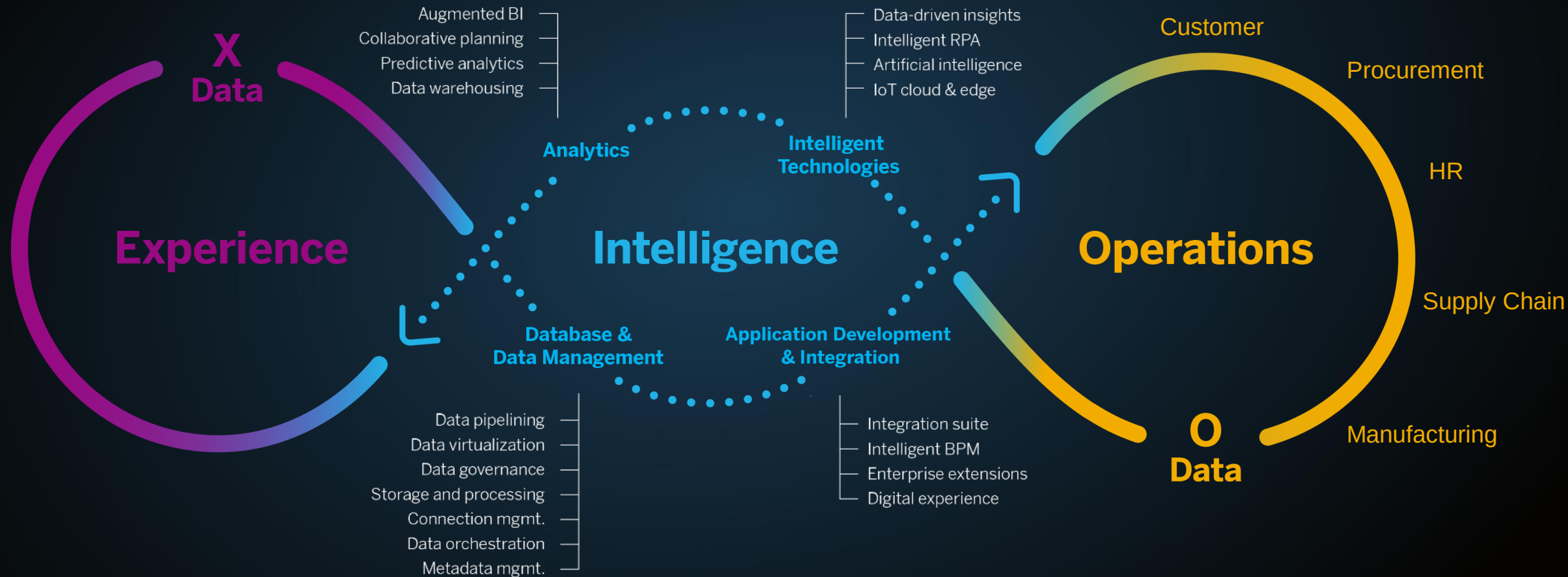
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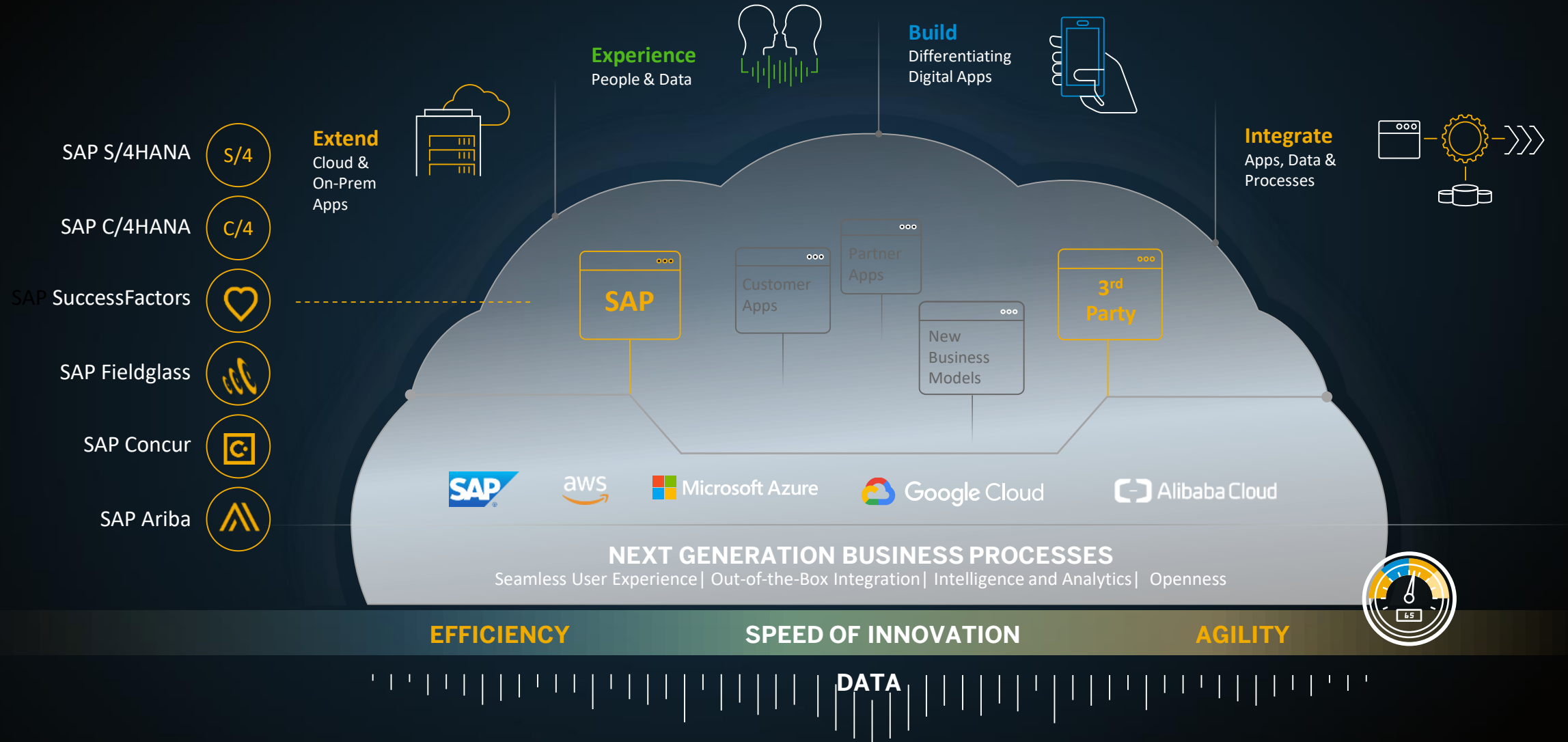
INTEGRATION & THE PATH TO THE INTELLIGENT ENTERPRISE



SAP is evolving its strategy to be “The **Experience Company** powered by the Intelligent Enterprise”

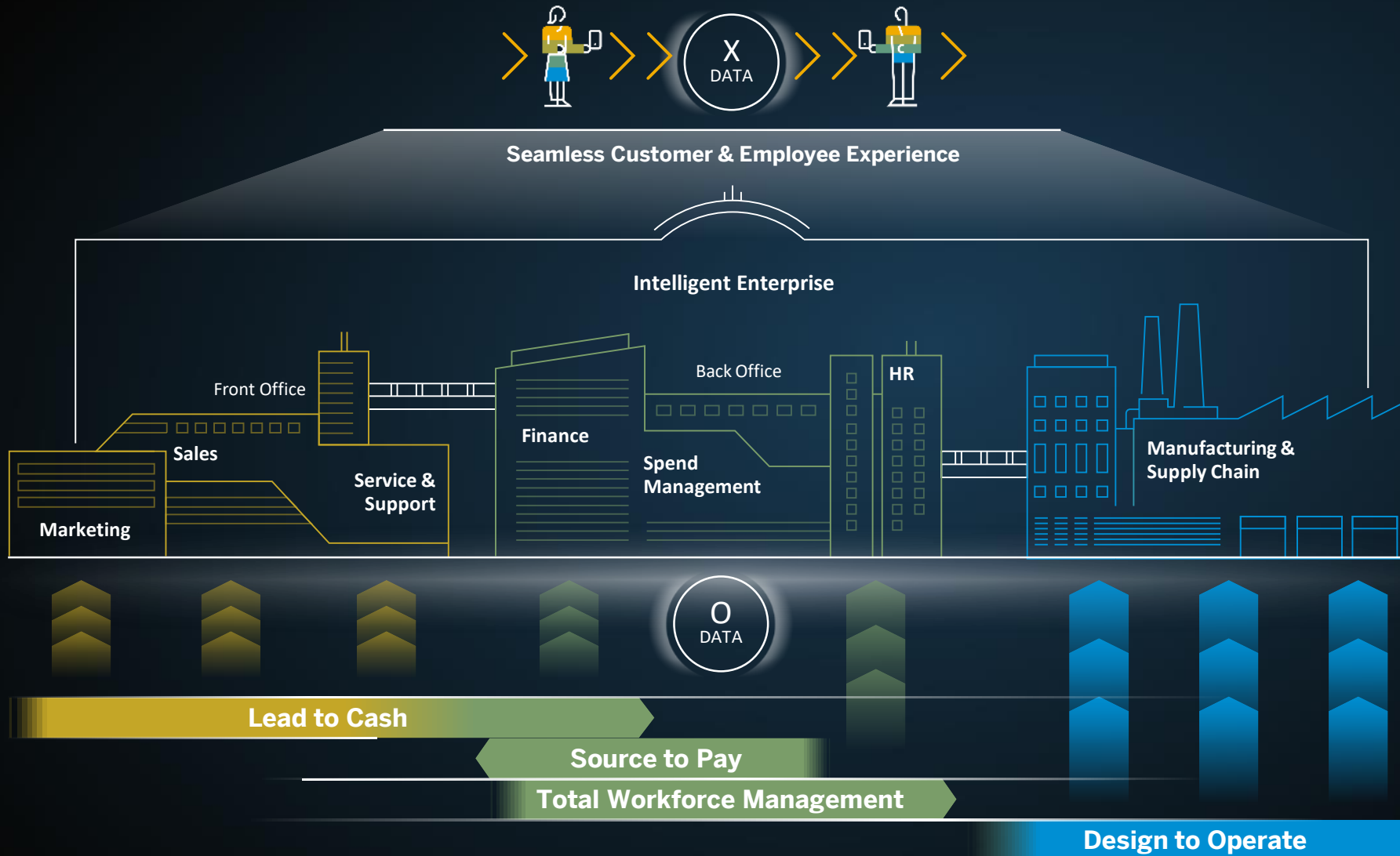


The Intelligent Enterprise is **more than ERP**



The Intelligent Enterprise

Integrated E2E Business Processes for the Entire Value Chain

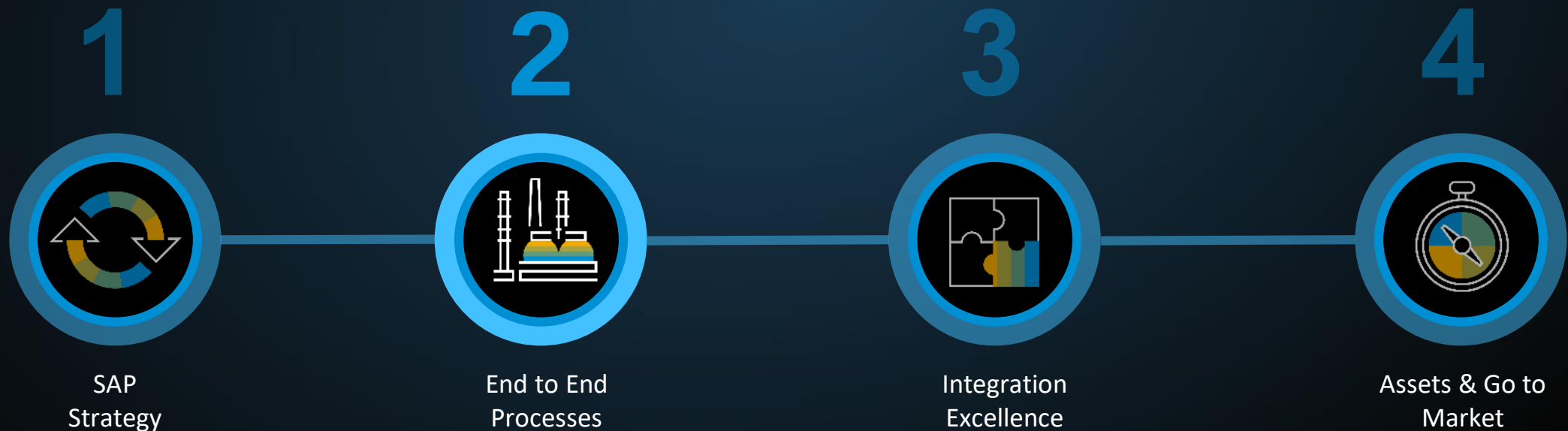


Complete E2E processes across the entire value chain

Focused execution along four key E2E processes

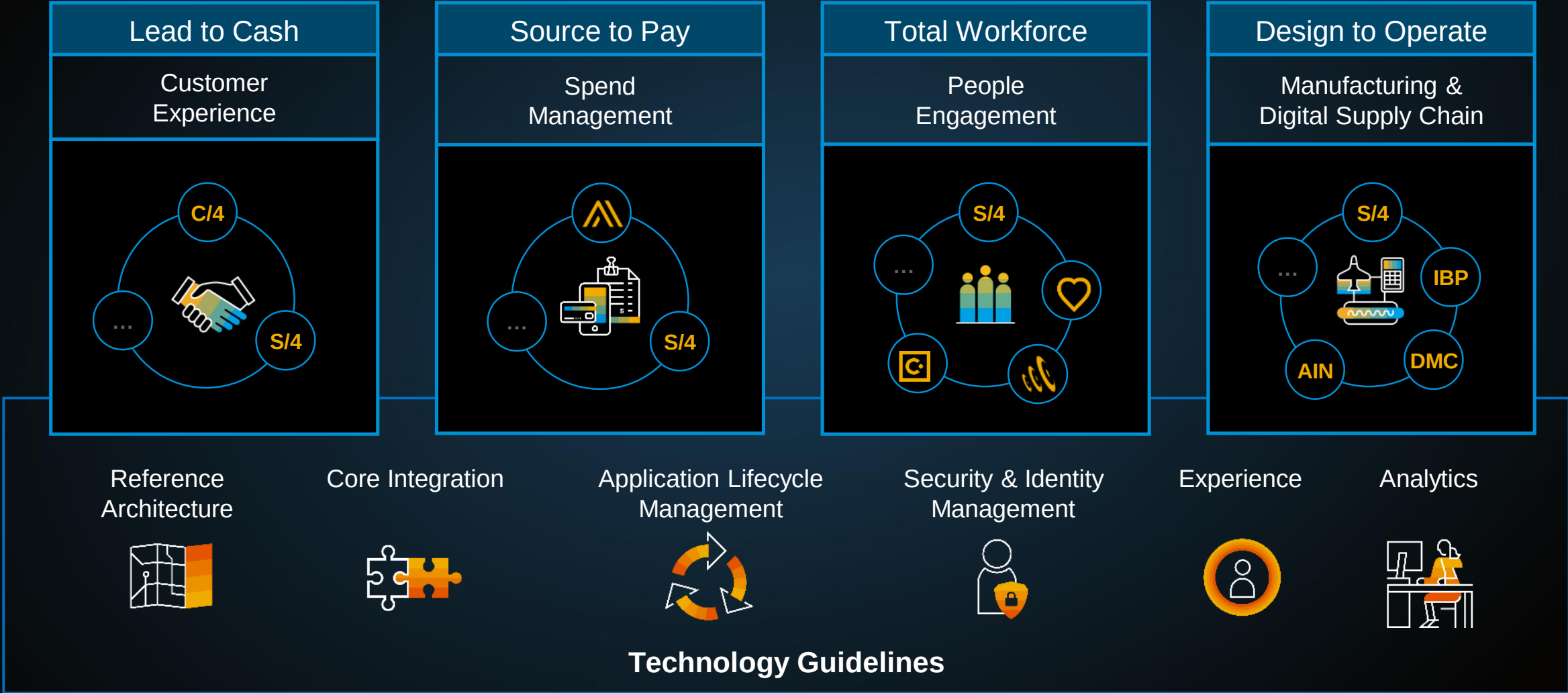
Seamless experience based on standardized technologies

INTEGRATION & THE PATH TO THE INTELLIGENT ENTERPRISE

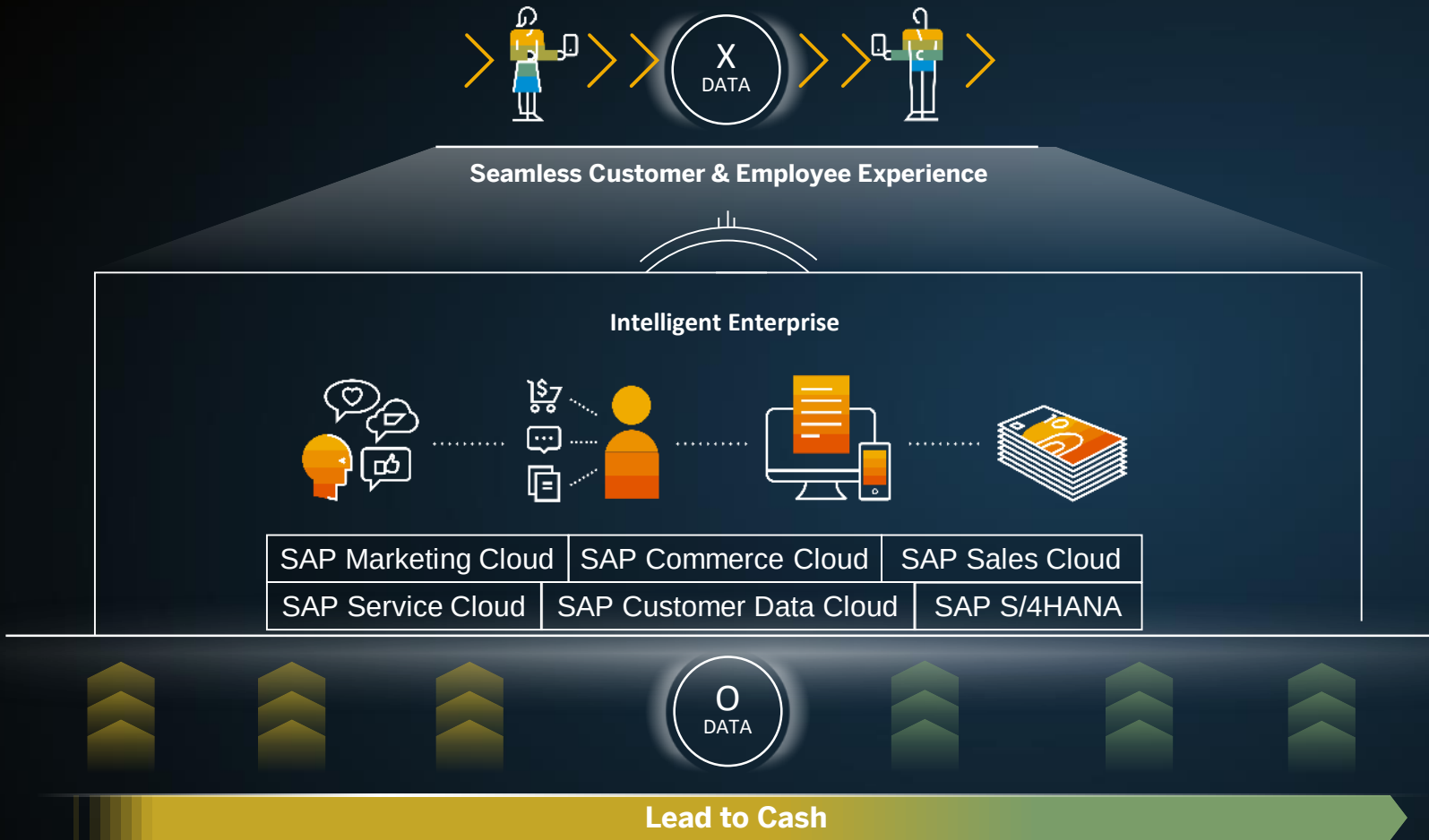


SAP integration DNA for the Intelligent Suite

Consistent adoption of technology guidelines* along key scenarios to form an Intelligent Suite

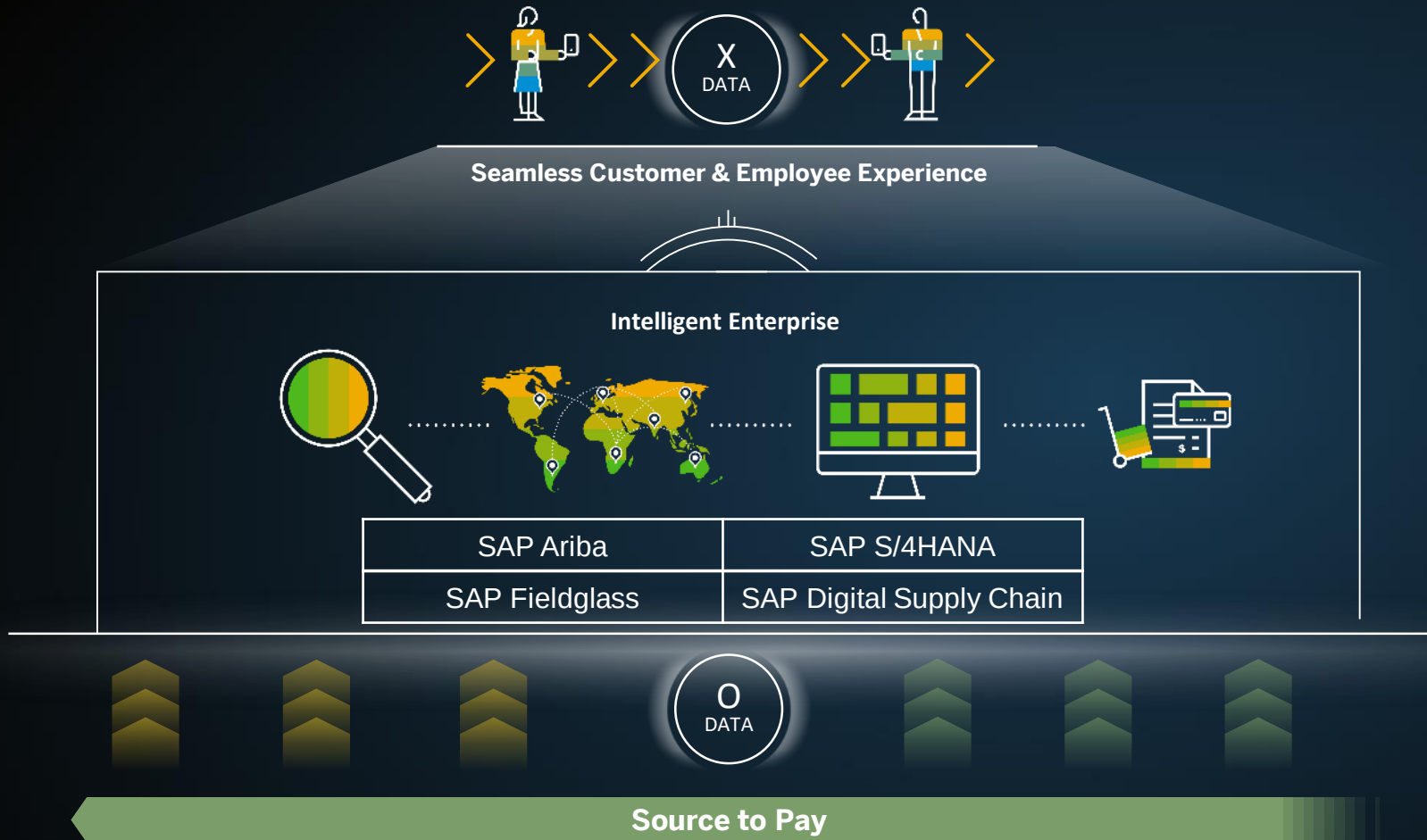


The Intelligent Enterprise: Integrated Lead to Cash End-to-End Process



Lead-to-Cash process connects a customer's interest to buy (SAP C/4 HANA) to a company's realization of revenue (in the back-end SAP S/4HANA system), bringing the front office together with back office.

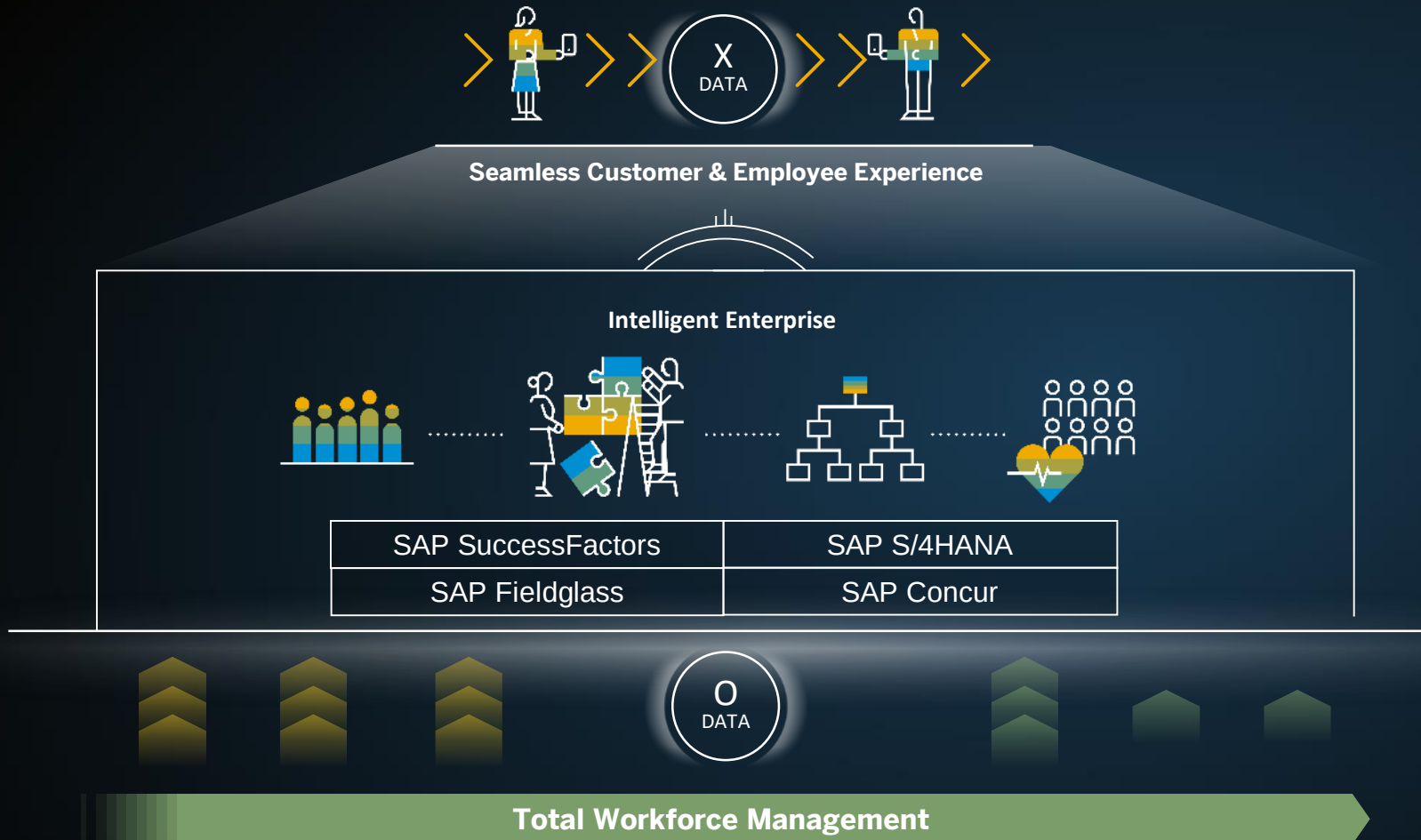
The Intelligent Enterprise: Integrated E2E Source to Pay Process



Source to Pay comprises two critical business areas for any company

- Sourcing as the strategic process of ensuring, e.g. that the right suppliers get chosen.
- Intelligent procurement to streamline procurement processes, shrink costs, increase profits

The Intelligent Enterprise: Integrated E2E Total Workforce Management Process



Total Workforce Management

- Simplifies and integrates human capital management (HCM) processes to drive better business results
- Helps find the right people for the right jobs and engage a diverse workforce with a digital HR experience

The Intelligent Enterprise: Integrated E2E Design to Operate Process



Seamless Customer & Employee Experience

Intelligent Enterprise



SAP S/4HANA Cloud for intelligent product design	SAP Integrated Business Planning	SAP Digital Manufacturing Cloud	SAP S/4HANA Supply Chain for extended warehouse management	SAP Intelligent Asset Management
SAP Product Lifecycle Costing	SAP 3D Visual Enterprise	SAP S/4HANA Manufacturing for Production Engineering and Operations	SAP S/4HANA Supply Chain for transportation	SAP Asset Manager for Mobile Asset Management
SAP Engineering Control Center for SAP S/4HANA	SAP Enterprise Product Engineering	SAP S/4HANA Manufacturing	SAP Logistics Business Network	SAP Asset Intelligence Network

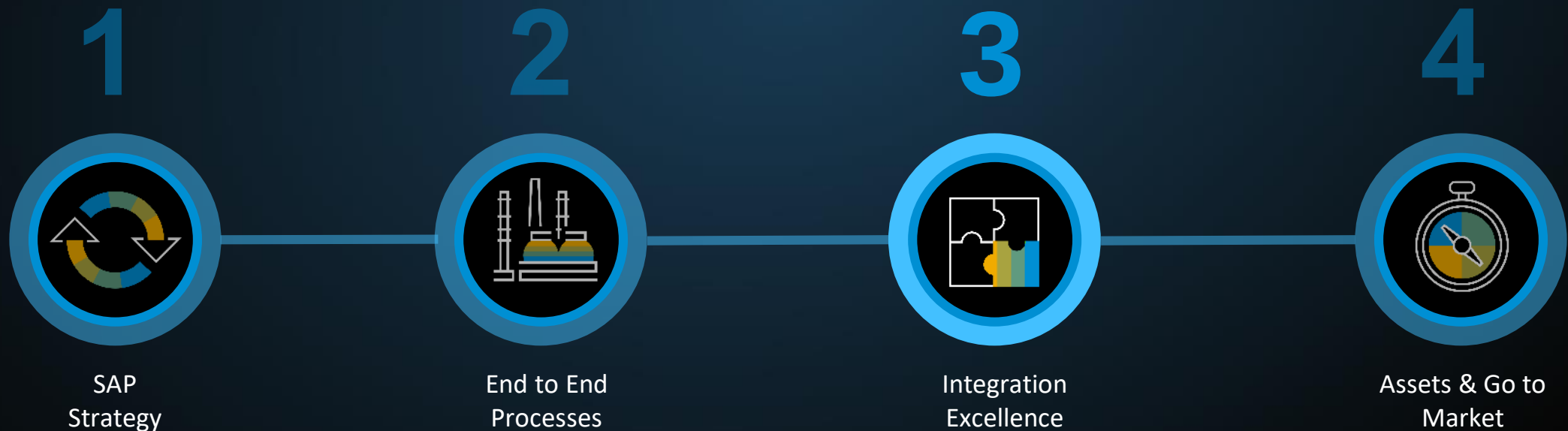


Design to Operate

Design to Operate

- Helps customers gain the intelligence they need to digitally manage their entire supply chain
- Employs advanced automation and predictive processes to maximize efficiency and responsiveness

INTEGRATION & THE PATH TO THE INTELLIGENT ENTERPRISE



Intelligent Enterprises are Integrated Enterprises

Key Integration Principles: Simplified Integration Across and Beyond the SAP Portfolio

OUT-OF-THE-BOX INTEGRATION



APIs & Pre-Packaged
Integration Content

Standardized
Technologies

Shared Master Data Services &
Aligned Business Configuration

OPEN INTEGRATION



Strong capabilities to integrate
with Non-SAP: +170 connectors

Simplified Extension of Pre-
Packaged Integrations

Rich Partner
Ecosystem

HOLISTIC INTEGRATION



Holistic Support of all
Integration Flavours

Methodology for
Enterprise Architects

Enterprise-Grade:
Multi-Cloud / E2E Monitoring

AI-DRIVEN INTEGRATION



Application of AI techniques to
simplify integration

Continuous Learning of
Integration Knowledge

Example: Integration Advisor
for SAP Cloud Platform

Unified Industry Reference Architecture



REFERENCE
ARCHITECTURE



CORE
INTEGRATION



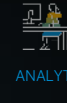
APPLICATION
LIFECYCLE MANAGEMENT



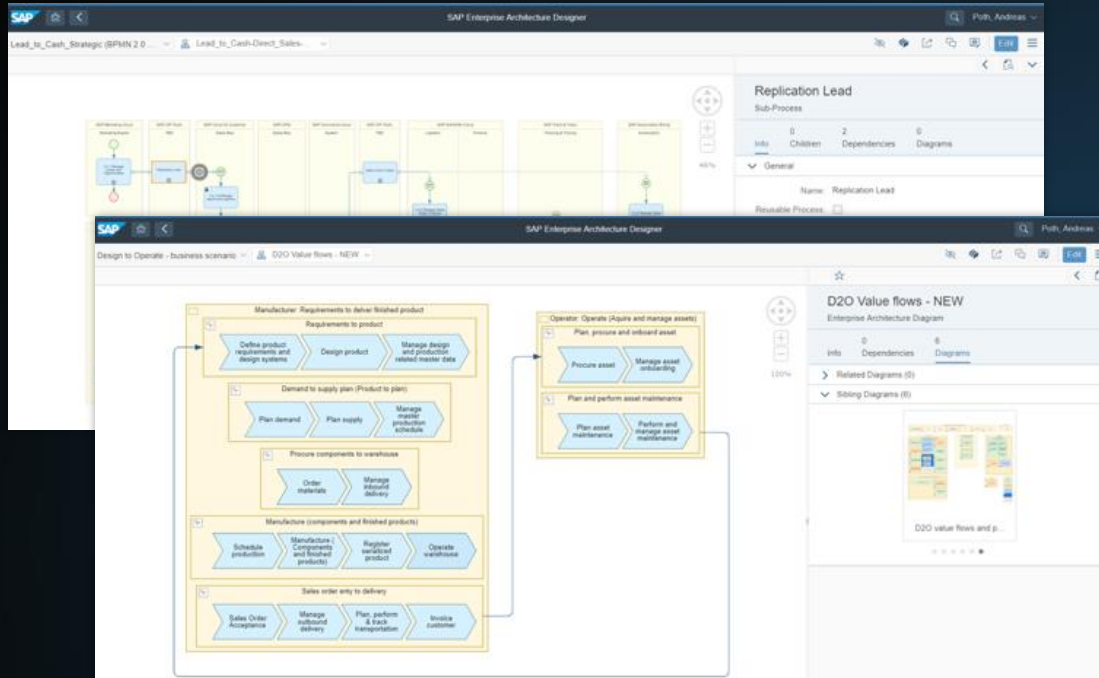
SECURITY & IDENTITY
MANAGEMENT



EXPERIENCE



ANALYTICS



Challenge

No clear understanding of which solutions are required to become an Intelligent Enterprise.

Limited visibility on target state of enterprise architecture and roadmaps.



Solution

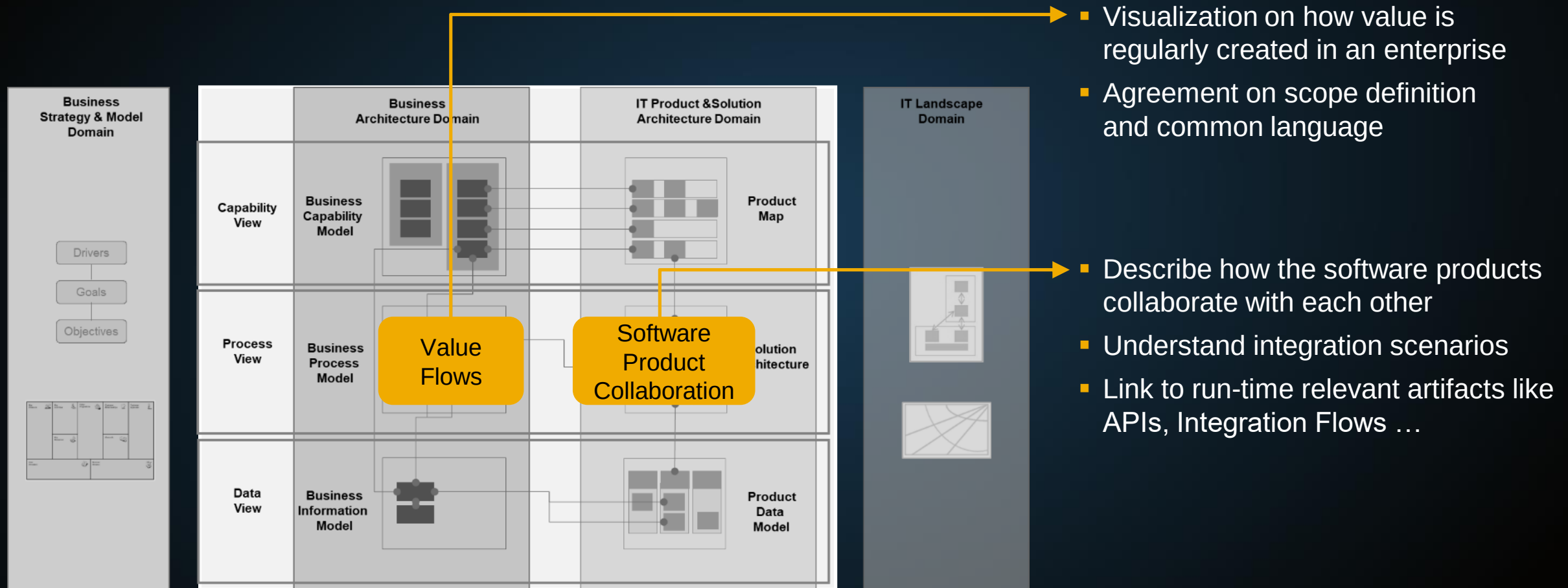
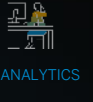
Provide a consistent overview on E2E processes supported by the Intelligent Suite

Reference architectures enable you to:

- Explore how E2E scenarios decompose into applications, modules, business services, technologies and integrations.
- Map out the roadmap to adopt the solution and transition from current solution landscape to target.
- Implement E2E scenarios which are connected with runtime artifacts

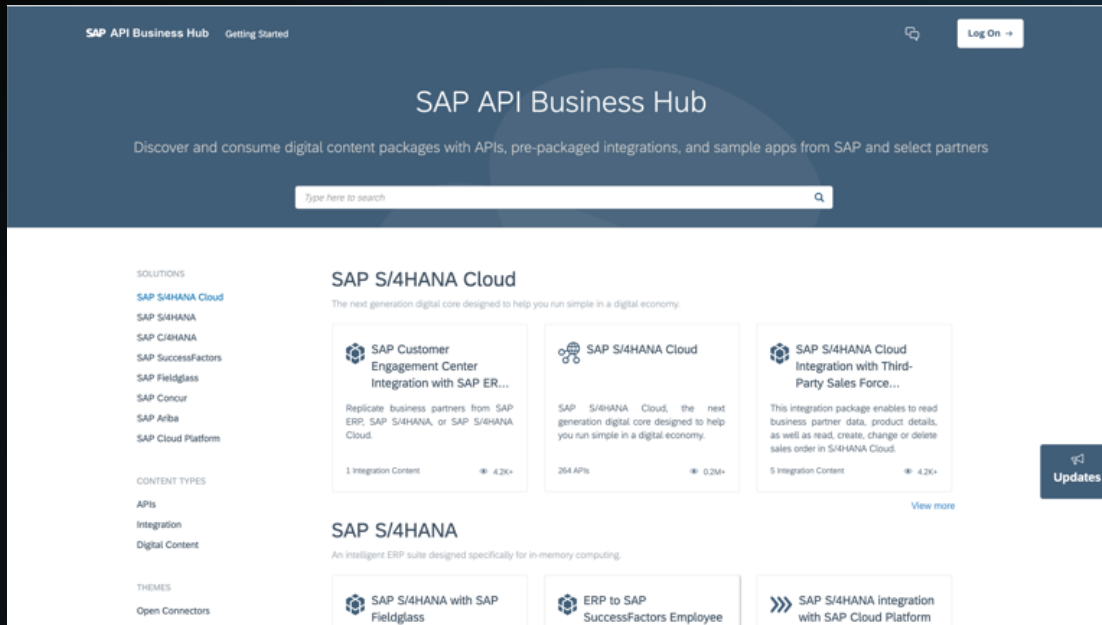
Reference architecture

Outlook: SAP delivered models in SAP API Business Hub



Core Integration:

Out-of-the-box integration based on **harmonized APIs and domain models**



Challenge

High degree of investments required to enable SAP (application to application) integration for process and master data.



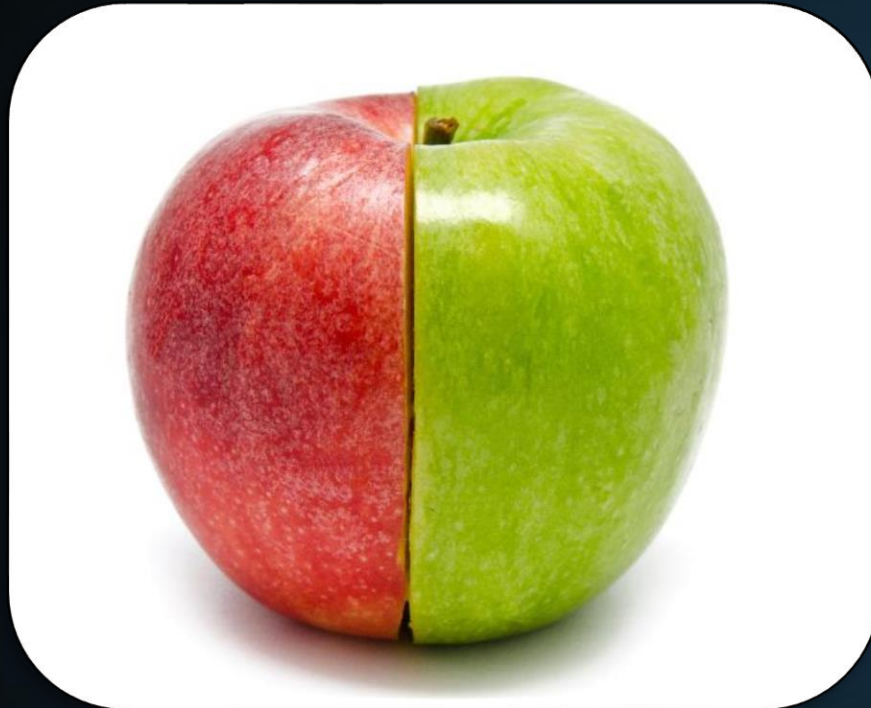
Solution

Simplify SAP-2-SAP integrations for the Intelligent Suite by aligned domain models and common integration patterns

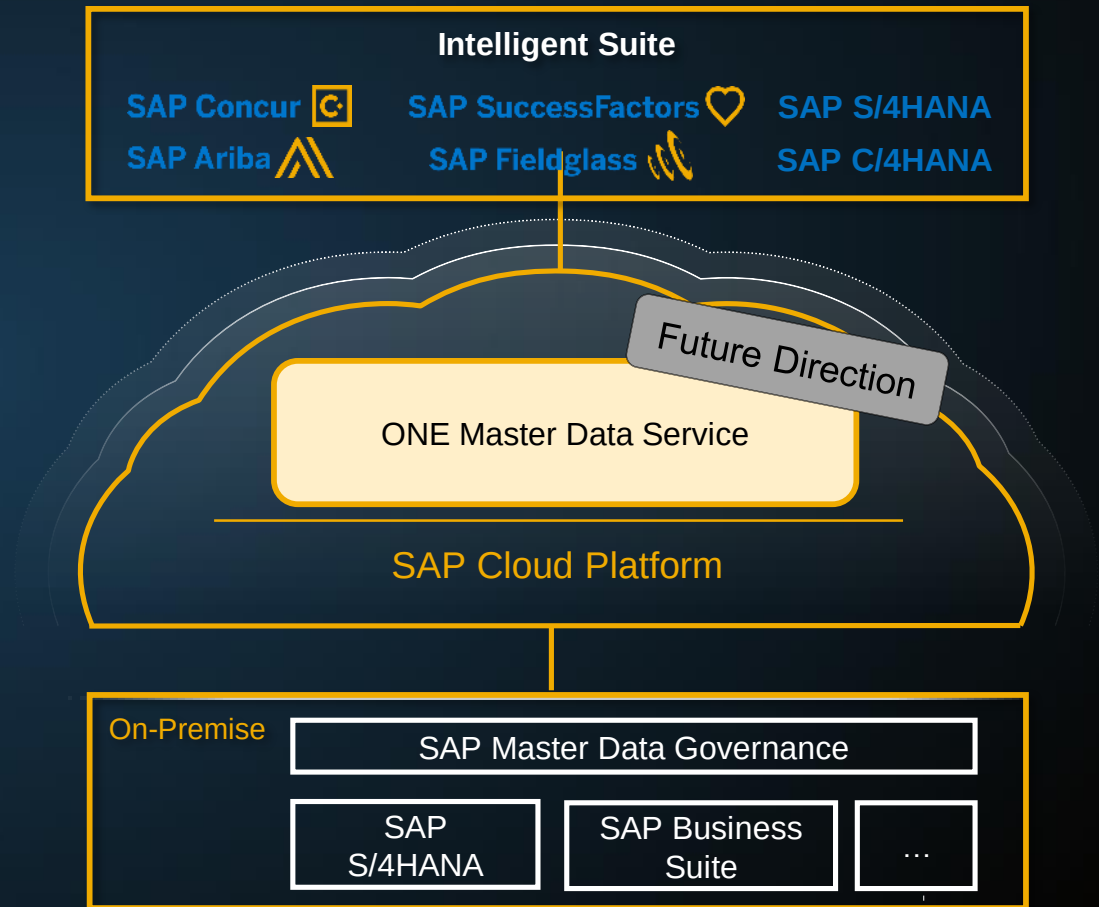
- Semantic alignment of domain models across SAP applications will result in aligned APIs in SAP API Business Hub
- Central master data services on SAP Cloud Platform to simplify the synchronization of master data across SAP applications
- Simplified, pre-packaged integrations based on standardized integration patterns

Core Integration:

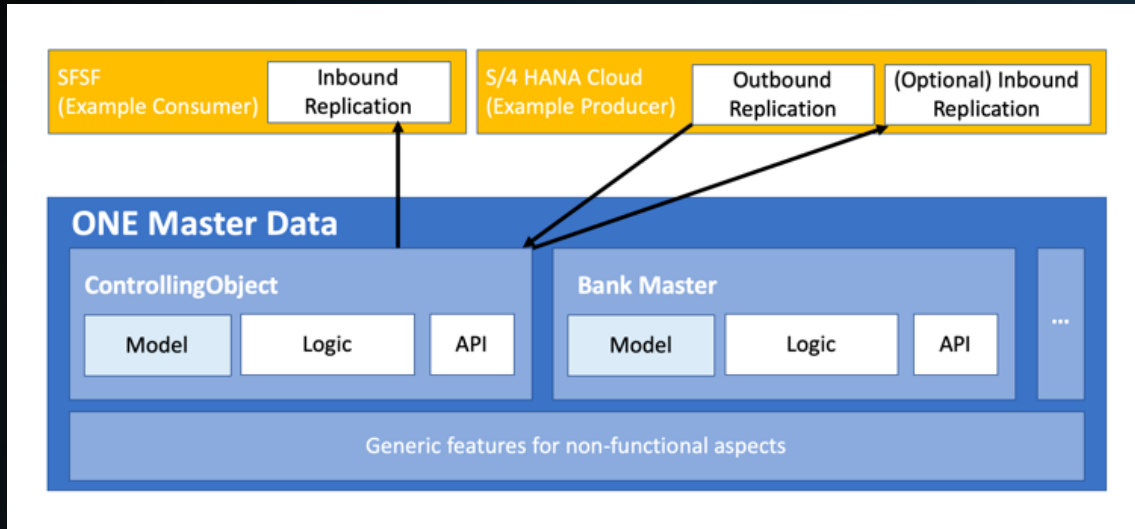
Central master data services



Semantically aligned data models will provide the foundation for the Intelligent Suite



Core Integration: Master Data Service



Challenge

Master data resides in various LoB applications requiring replication and synchronization across various applications causing high effort and potential inconsistencies.



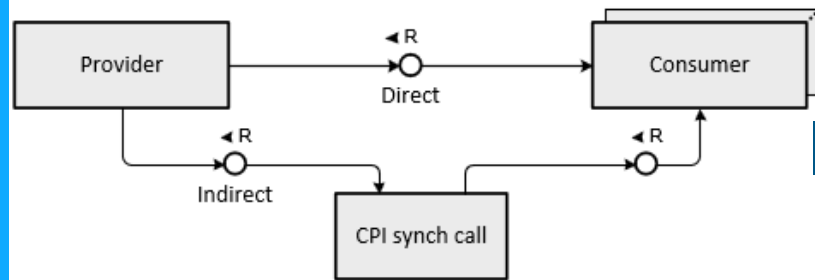
Solution

Central master data service enables you to:

- Work with the same and complete customer, employee and other master data across all SAP applications.
- Access the latest and accurate information without worrying about data replication and synchronization.
- Extend master data centrally and only once.

Process integration for the Intelligent Suite

Three Base Patterns



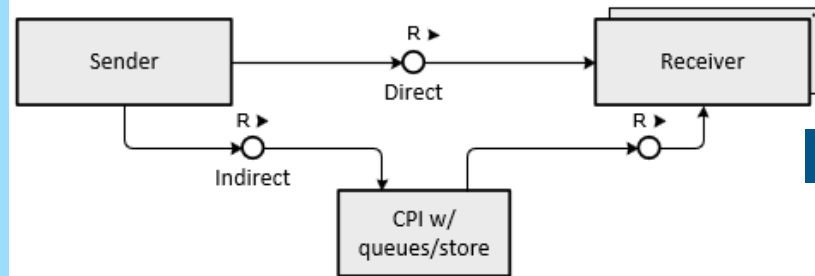
PULL PATTERN

Sync Request/Response

Consumer driven

Strengths: Authorization, Simplicity

Weaknesses: Polling, Provider Performance



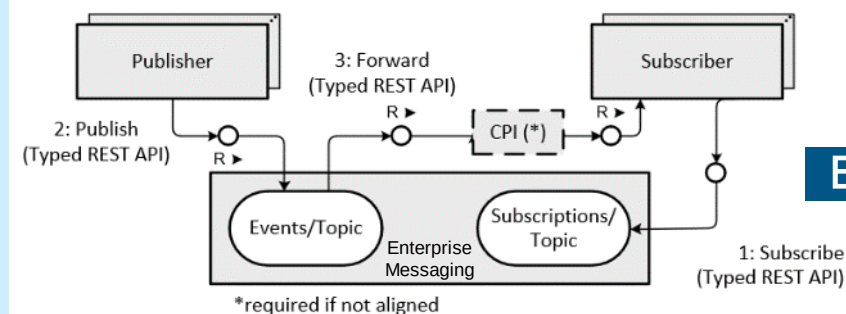
PUSH PATTERN

Async Messaging with QualityOfService

Sender driven

Strengths: Control, Decoupling

Weaknesses: Queues/Retry, Static Routing



EVENT PATTERN

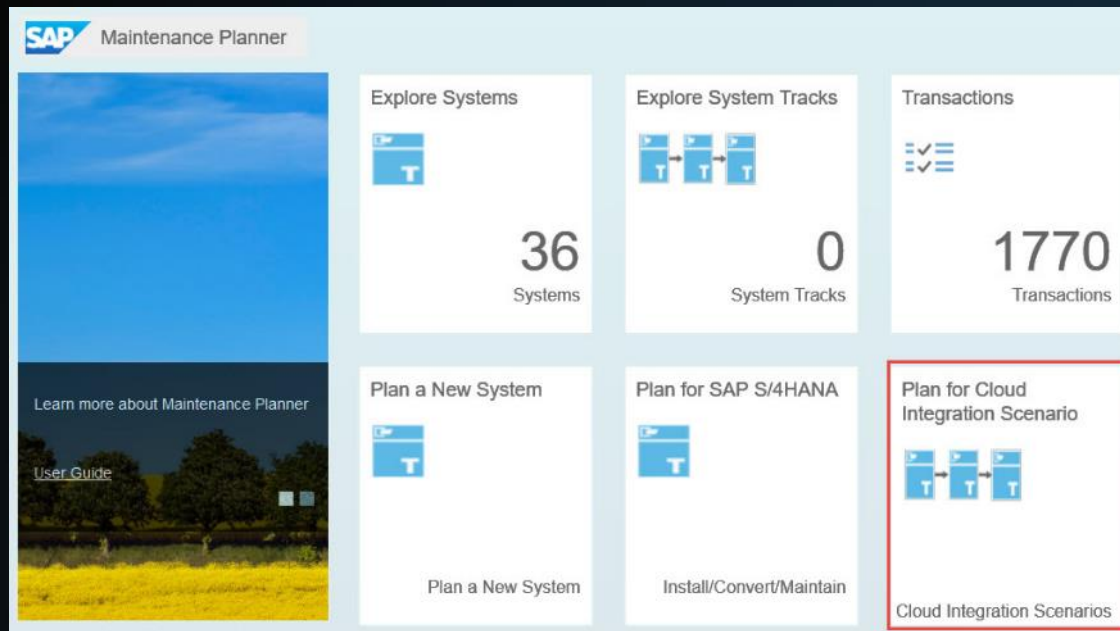
Push Pattern with Publish&Subscribe

Publisher&Subscriber driven

Strengths: Flexibility, Decoupling

Weaknesses: Authorization, Audit Logging

Automated Provisioning and Integration



Challenge

Unclear landing time and corridor for the solutions that customers subscribe to, different onboarding, different timelines.



Solution

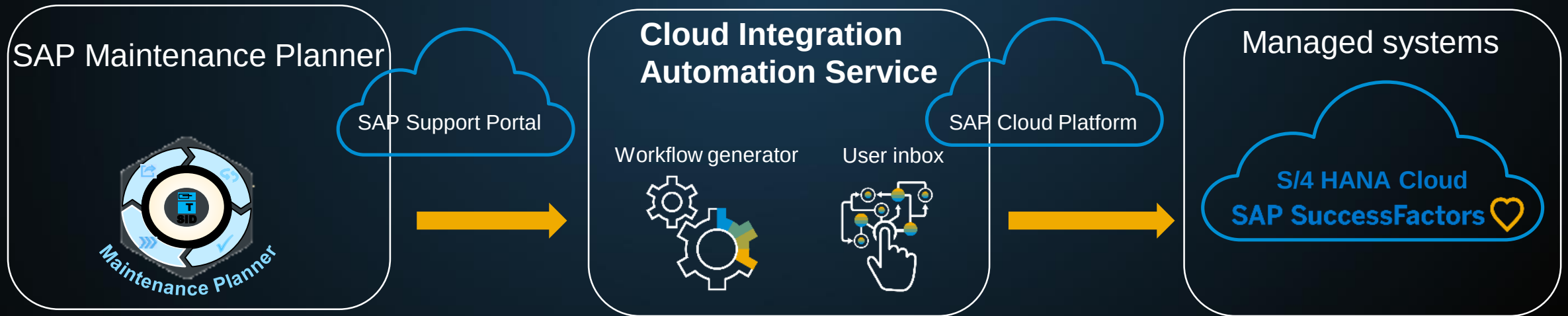
Provide a consistent application provisioning and operations approach across the Intelligent Suite

- Automated provisioning of SAP applications and automated set-up of integration scenarios
- Centralized integration monitoring infrastructure
- Harmonized release and maintenance schedules

Cloud Integration Automation Service

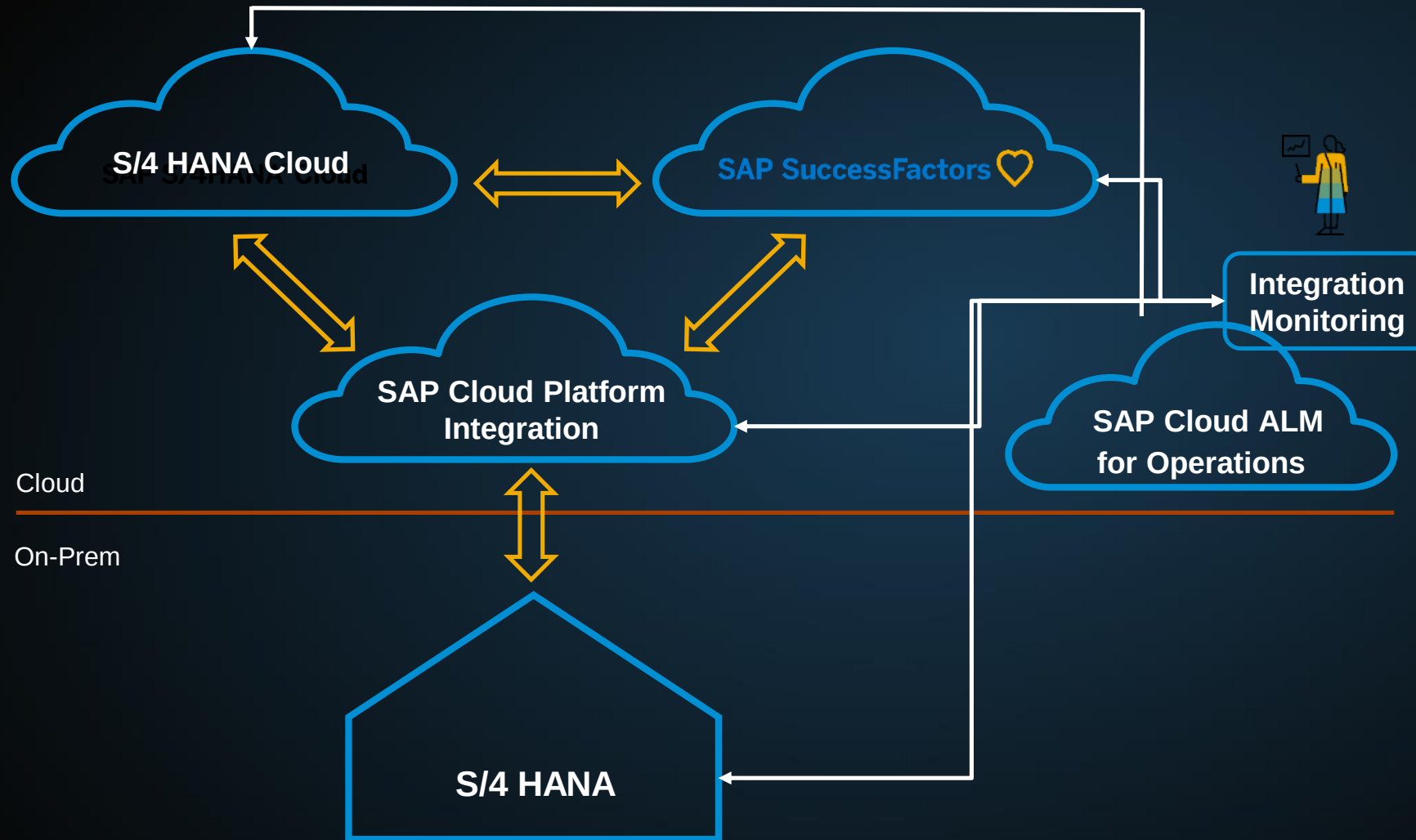
Guided implementation of integration scenarios across your application landscape

1. In SAP Maintenance Planner: Choose an **integration scenario** and select the right systems.
2. Use the Cloud Integration Automation Service to generate a **role based workflow** with predefined tasks.
3. In SAP Cloud Platform workflow: **Assign the tasks** to the right experts.
4. **Process the tasks** from the workflow in the managed systems.



SAP Cloud ALM for Operations – Integration Monitoring

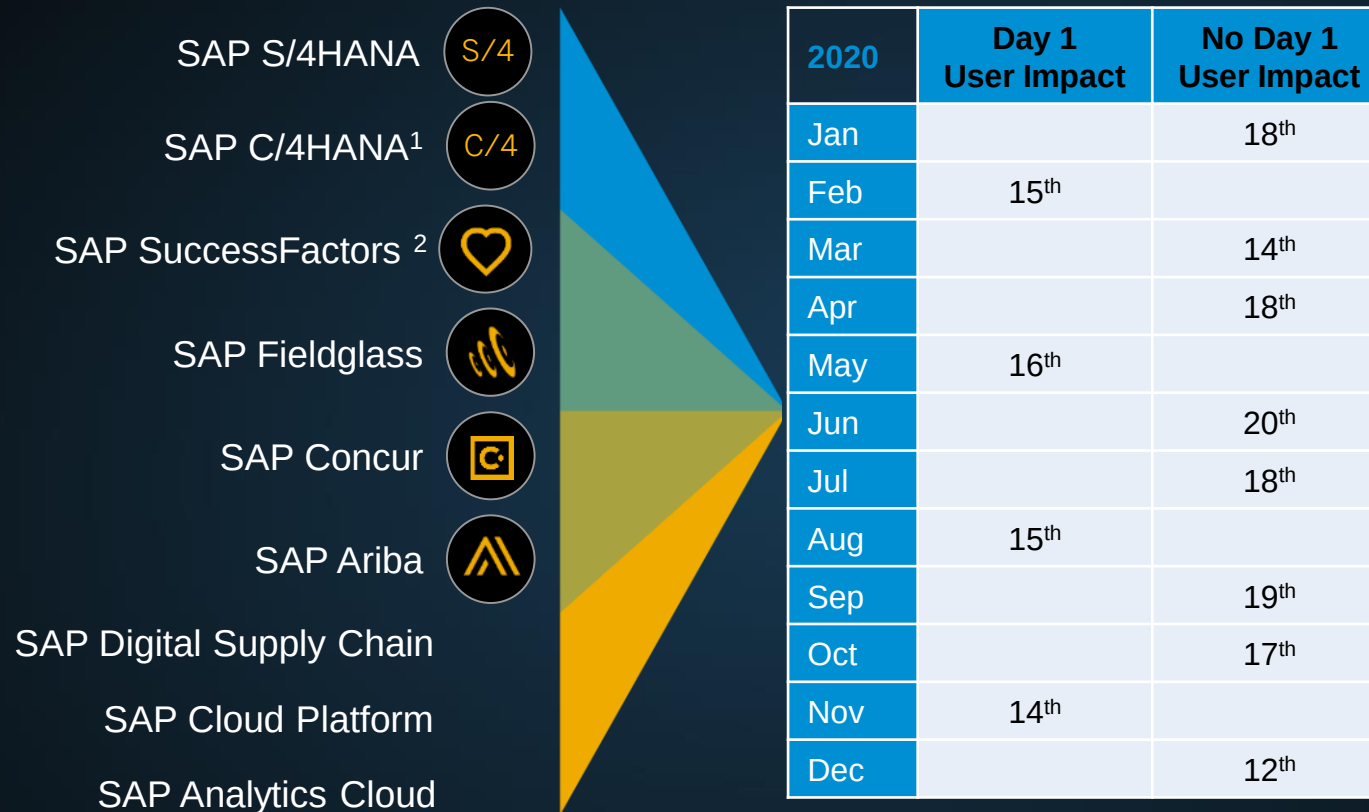
Consistent integration monitoring for the Intelligent Enterprise



- Ensures reliable data exchange processes at application level in cloud-only and hybrid scenarios
- Provides end-to-end monitoring across SAP cloud services and applications based on SAP Passport mechanism
- Closes gap between business and IT during issue resolution process (technical issue vs. business issue)

Harmonized release & maintenance schedule 2020

Simplifies the consumption of new innovations delivered for the Intelligent Suite

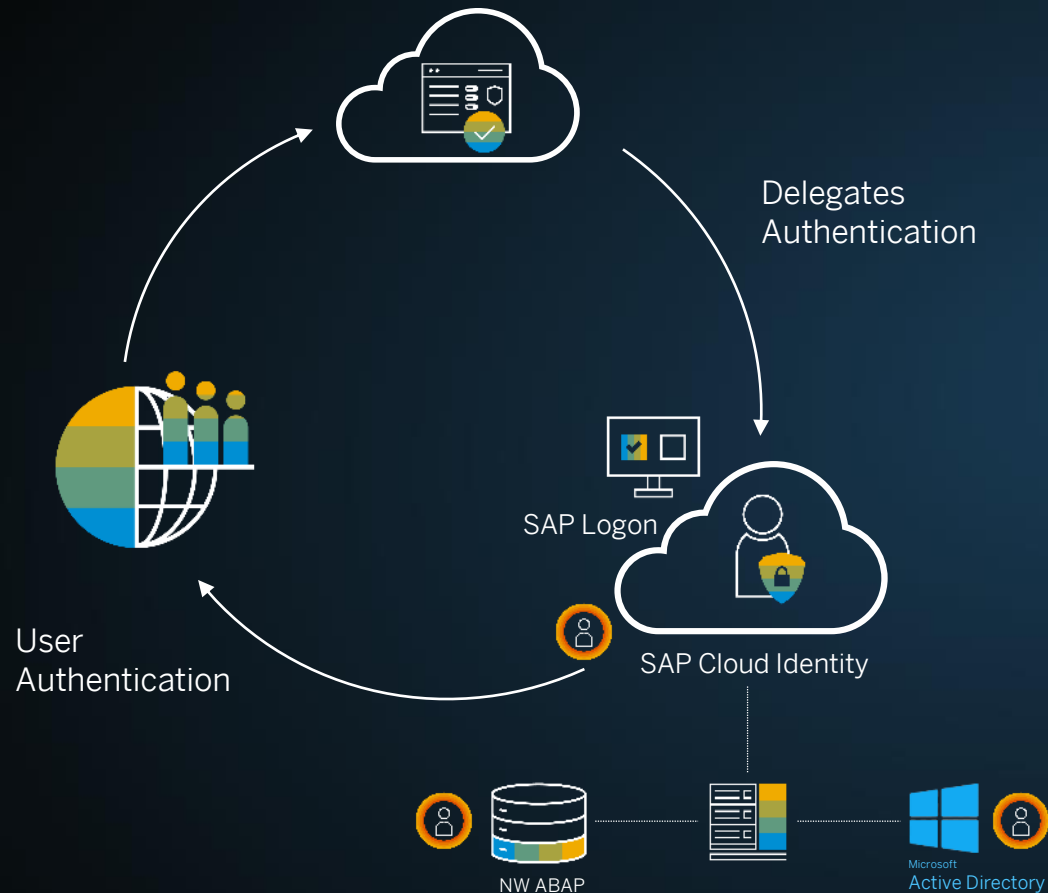


This is the current state of planning and may be changed by SAP at any time.

¹ SAP Commerce Cloud will release the Wednesday prior

² SAP SuccessFactors will release November 21st instead of November 14th.

SSO, Identity Provisioning & Lifecycle Management



Challenge

Customers manage users locally for every application, thus introducing inconsistencies and redundancies.



Solution

Enable a seamless and consistent identity provisioning and authentication procedure for the Intelligent Suite

Customers can easily:

- Define which users have access to which applications in a single place (with one account per user across all applications).
- Quickly roll out a new application across the organization without maintaining users locally in the application.
- Ensure compliance by changing or revoking user access centrally.

Consistent User Experience



REFERENCE
ARCHITECTURE



CORE
INTEGRATION



APPLICATION
LIFECYCLE MANAGEMENT



SECURITY & IDENTITY
MANAGEMENT



EXPERIENCE



ANALYTICS



Challenge

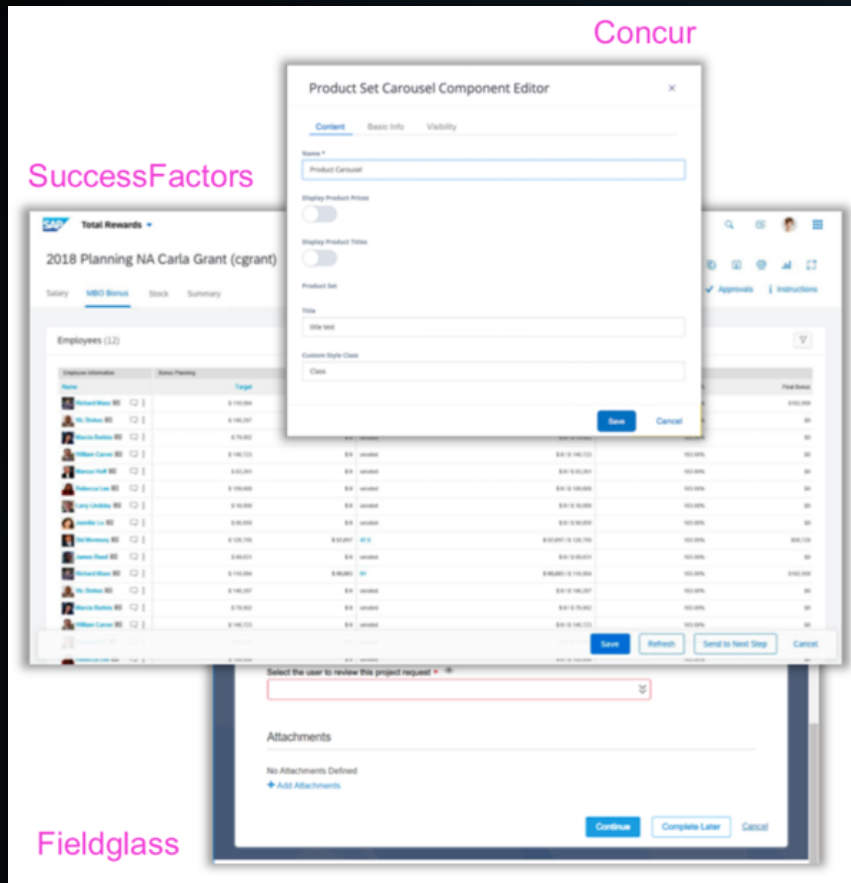
A typical end user's job requires them to work with multiple SAP applications. Inconsistent UX patterns make user experience and navigation non-intuitive. Different visual designs make it difficult for users to find their way around.



Solution

Provide users with a consistent user experience even when working with multiple applications to fulfill a task.

- Consistent adoption of Fiori Design Guidelines
- Provide contextual guidance in solving tasks
- Easy to figure out how to work with a screen even when for occasional and first time users
- Consistent look and feel
- Seamless navigation across applications as controls



Manage workflow tasks across the Intelligent Suite

Example: Central inbox



REFERENCE
ARCHITECTURE



CORE
INTEGRATION



APPLICATION
LIFECYCLE MANAGEMENT



SECURITY & IDENTITY
MANAGEMENT



EXPERIENCE

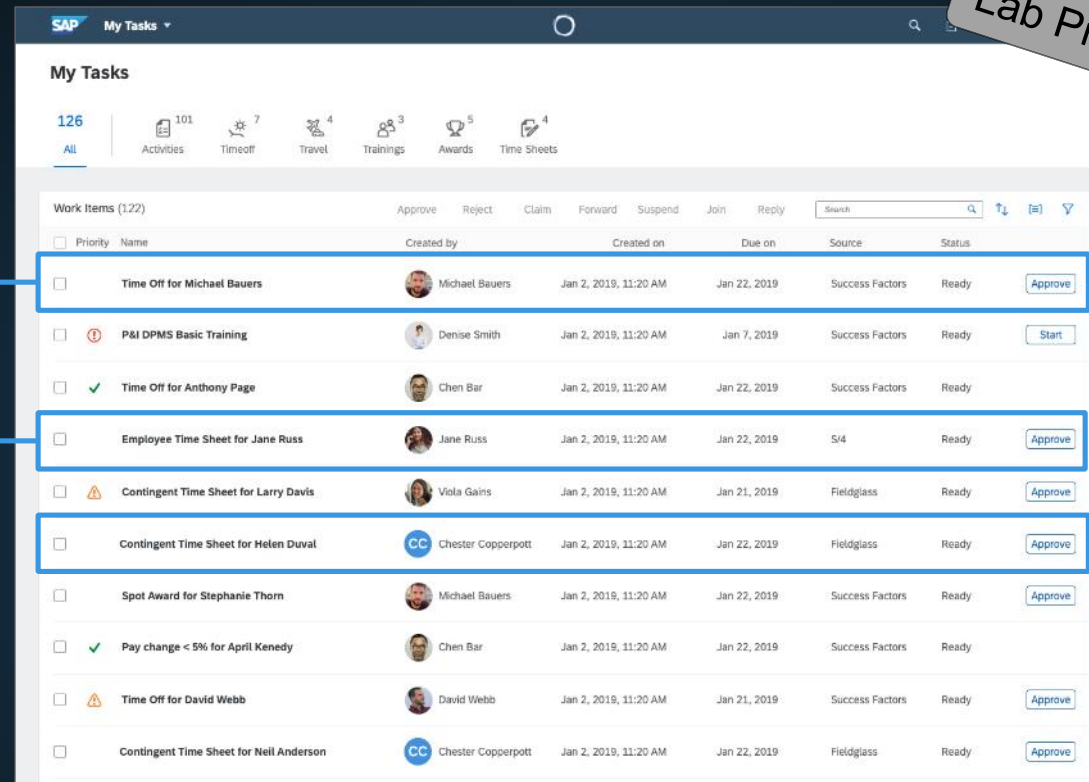


ANALYTICS

SAP SuccessFactors 

SAP S/4HANA Cloud

Lab Preview



Work Items (122)							Approve	Reject	Claim	Forward	Suspend	Join	Reply	Search	Filter	Sort
Priority	Name	Created by	Created on	Due on	Source	Status										
☐	Time Off for Michael Bauers	 Michael Bauers	Jan 2, 2019, 11:20 AM	Jan 22, 2019	Success Factors	Ready	Approve									
☐	P&I DPMS Basic Training	 Denise Smith	Jan 2, 2019, 11:20 AM	Jan 7, 2019	Success Factors	Ready	Start									
☐	Time Off for Anthony Page	 Chen Bar	Jan 2, 2019, 11:20 AM	Jan 22, 2019	Success Factors	Ready										
☐	Employee Time Sheet for Jane Russ	 Jane Russ	Jan 2, 2019, 11:20 AM	Jan 22, 2019	S/4	Ready	Approve									
☐	Contingent Time Sheet for Larry Davis	 Viola Gains	Jan 2, 2019, 11:20 AM	Jan 21, 2019	Fieldglass	Ready	Approve									
☐	Contingent Time Sheet for Helen Duval	 Chester Copperpott	Jan 2, 2019, 11:20 AM	Jan 22, 2019	Fieldglass	Ready	Approve									
☐	Spot Award for Stephanie Thorn	 Michael Bauers	Jan 2, 2019, 11:20 AM	Jan 22, 2019	Success Factors	Ready	Approve									
☐	Pay change < 5% for April Kenedy	 Chen Bar	Jan 2, 2019, 11:20 AM	Jan 22, 2019	Success Factors	Ready										
☐	Time Off for David Webb	 David Webb	Jan 2, 2019, 11:20 AM	Jan 21, 2019	Success Factors	Ready	Approve									
☐	Contingent Time Sheet for Neil Anderson	 Chester Copperpott	Jan 2, 2019, 11:20 AM	Jan 22, 2019	Fieldglass	Ready	Approve									

SAP Fieldglass 

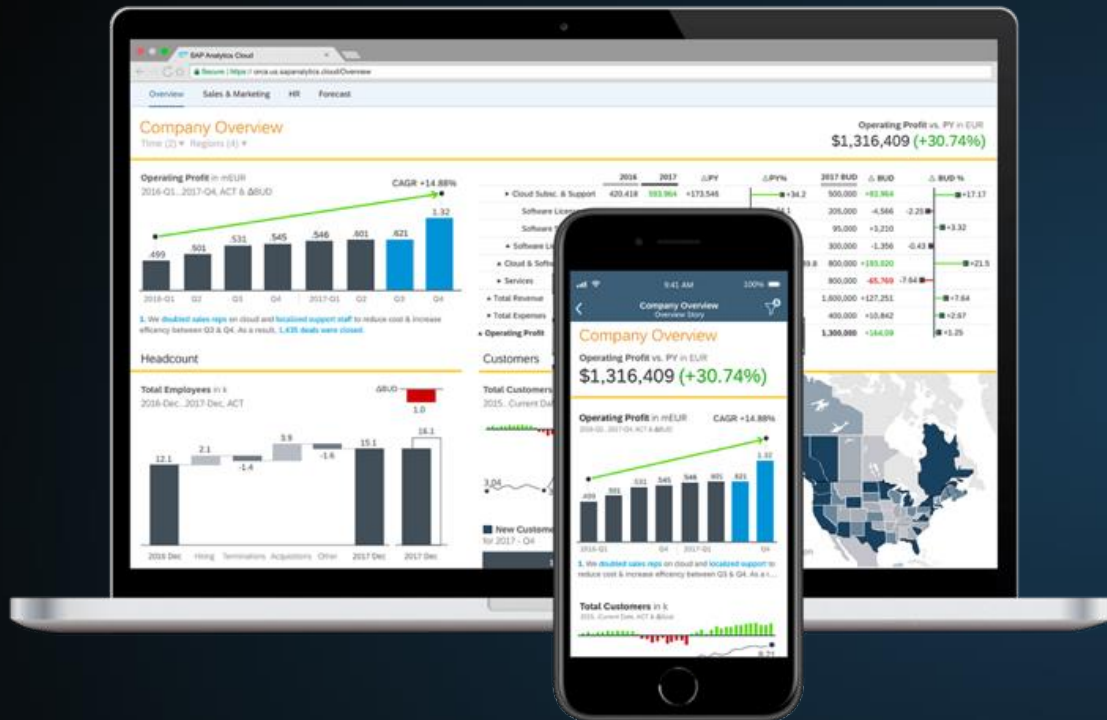
Federation from
tasks across the
Intelligent Suite

Navigation into
target applications

My tasks app for use
with Central Fiori
Launchpad

Public APIs for 3rd
Party Integration

Planned as service
for SAP Cloud
Platform



Challenge

Applications and analytics run in separate contexts, forcing users to work in two environments side-by-side, which breaks the process flow.



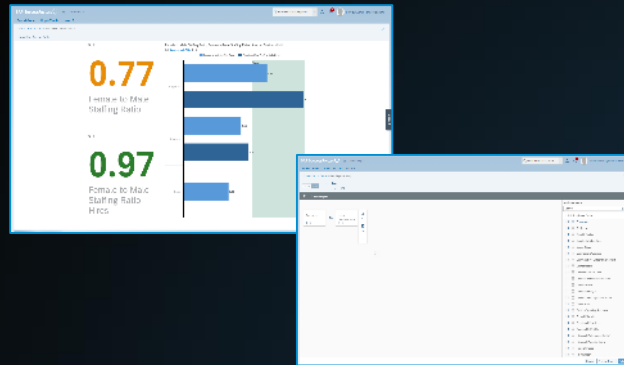
Solution

Provide with SAP Analytics Cloud one consistent approach for all analytical use cases of the Intelligent Suite

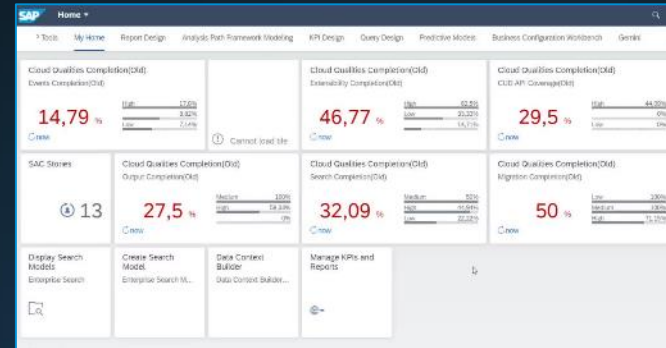
- **Embedded Analytics:** Users can get analytical insights on the outcomes and progress of business transactions from within the applications.
- **Cross-application Analytics:** Get insights/data from multiple applications, aggregating across process steps and regional organizations.

Embedded analytics across the Intelligent Suite

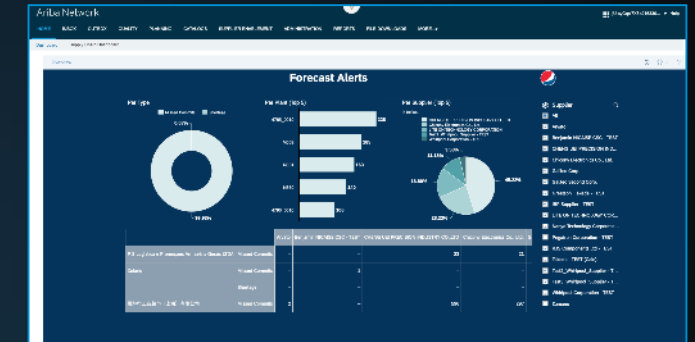
Outlook and Examples



SAP SuccessFactors 



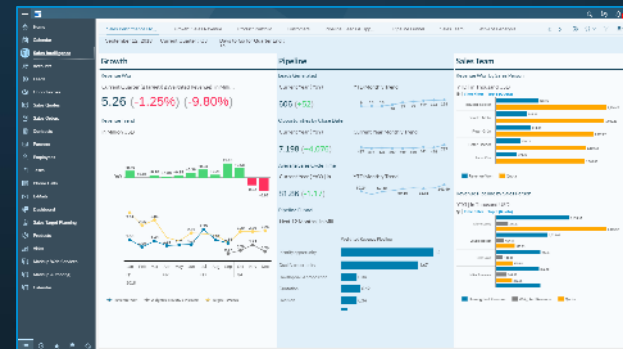
S/4 HANA Cloud



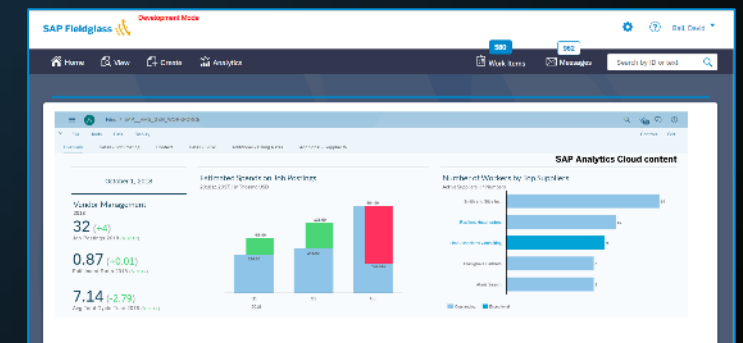
SAP Ariba 



SAP C/4HANA
Marketing Cloud



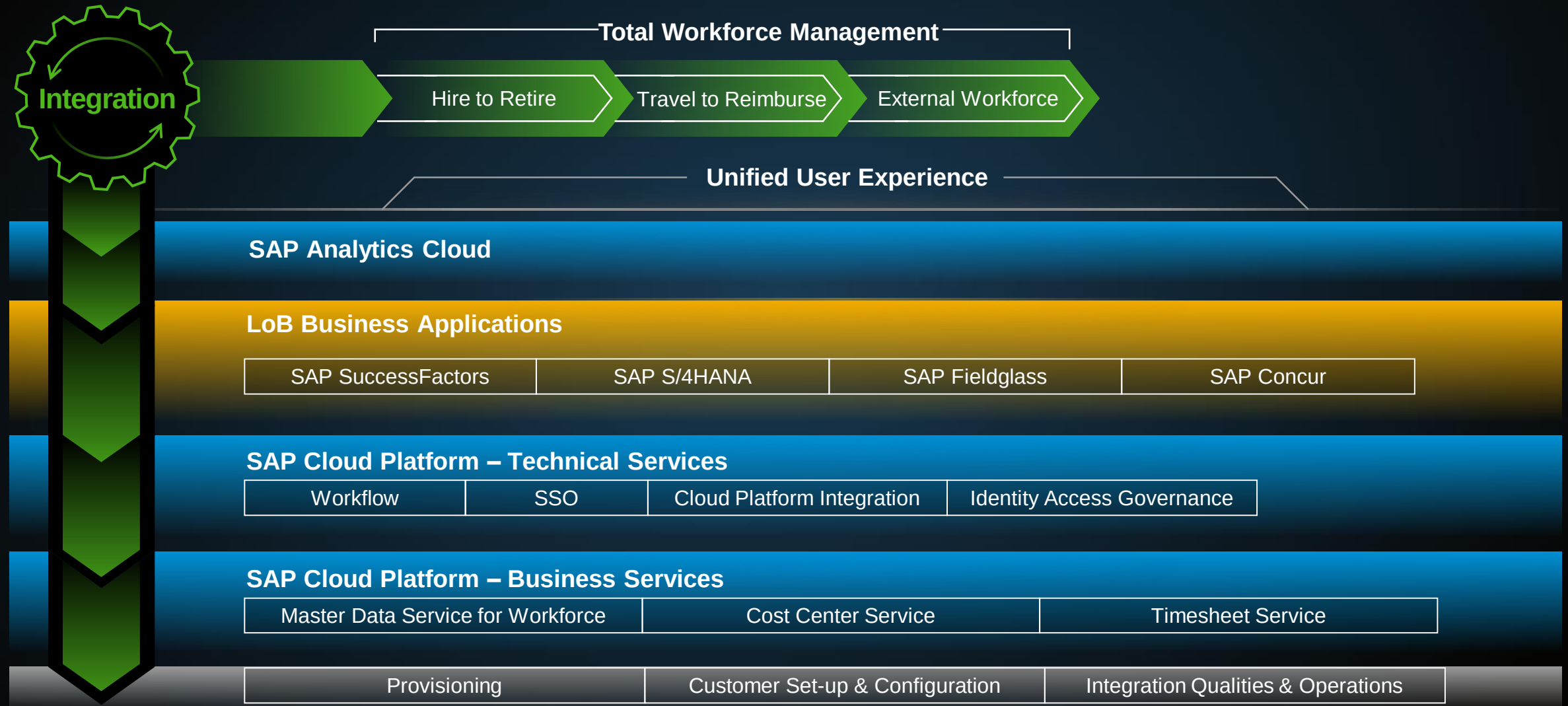
SAP C/4HANA
Sales Cloud



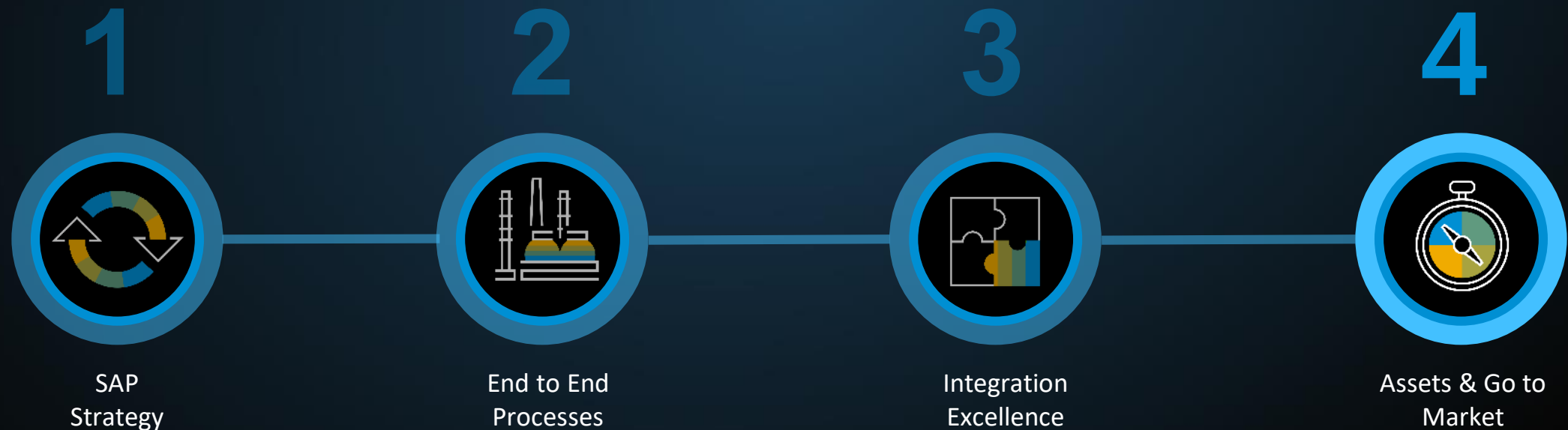
SAP Fieldglass 

From Integration to Integrated Business Processes

Illustrative High-Level View for Total Workforce Management

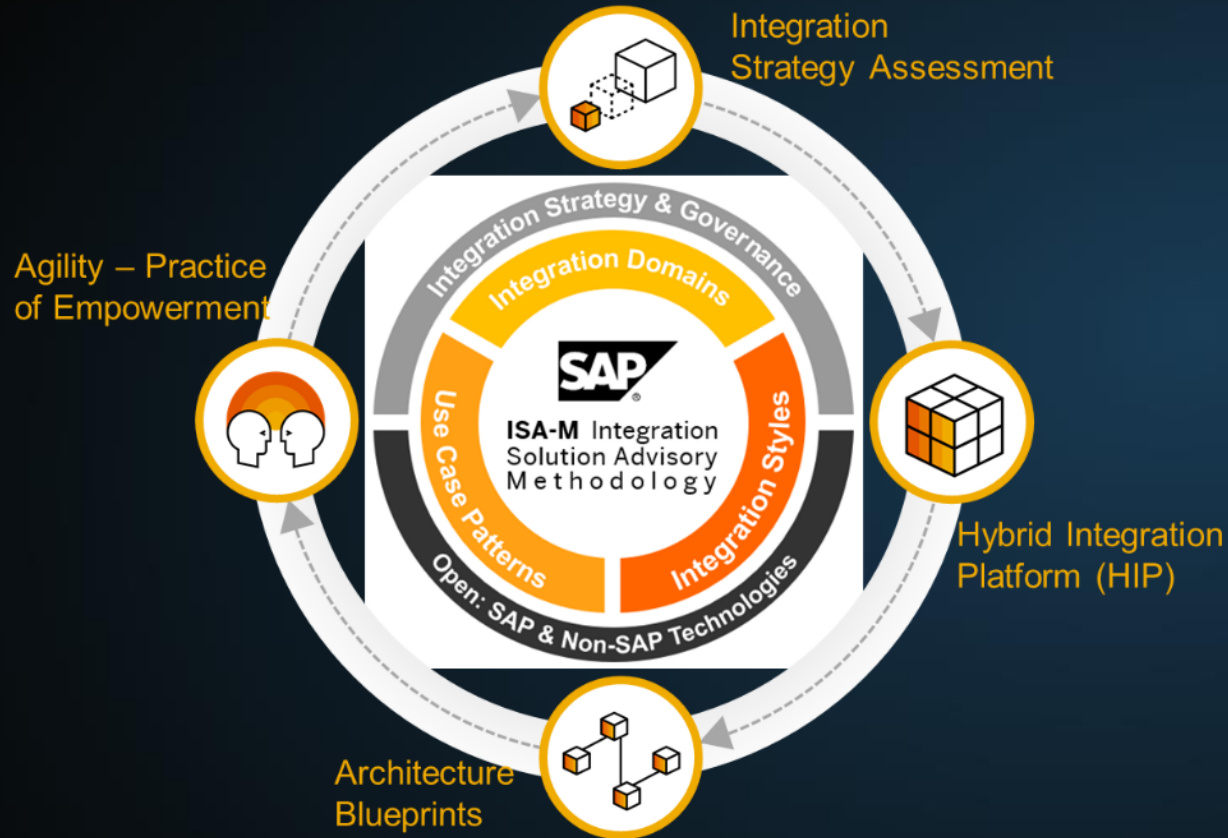


INTEGRATION & THE PATH TO THE INTELLIGENT ENTERPRISE



Integration Methodology for the Intelligent Enterprise

ISA-M: Integration Solution Advisory Methodology



Overview

- Helps enterprise architects to shape their integration strategy
- Collection of typical integration styles and patterns
- Mapping to integration services (based on customer context)
- Open to SAP and Non-SAP services / technologies
- Target Group: Enterprise Architects / Integration Architects

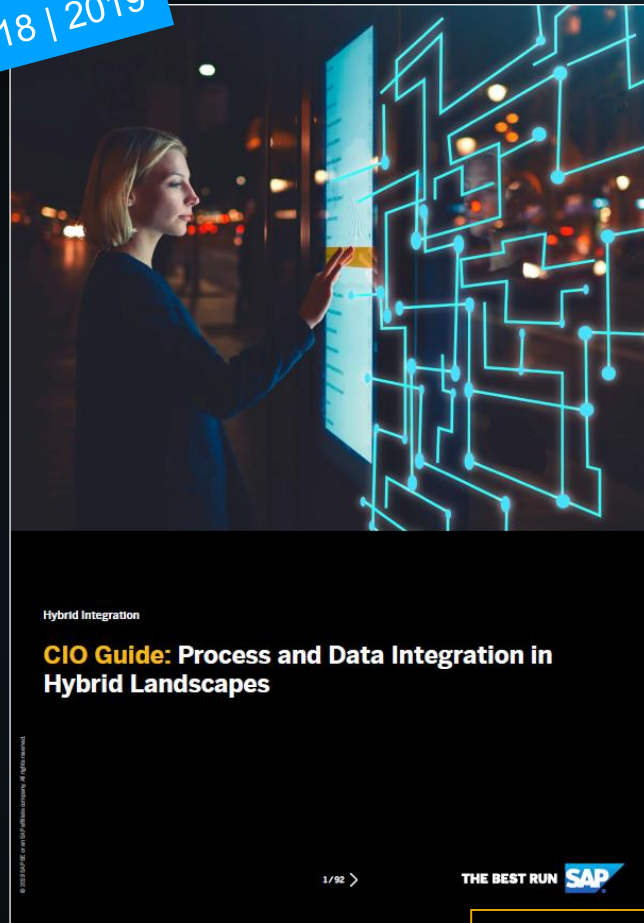
ISA-M Template

- Free PPT template available
- Successfully adopted in multiple global organizations
- SAP Consulting Services (optional)
- +1.300 registered customers, partners and SAP consultants

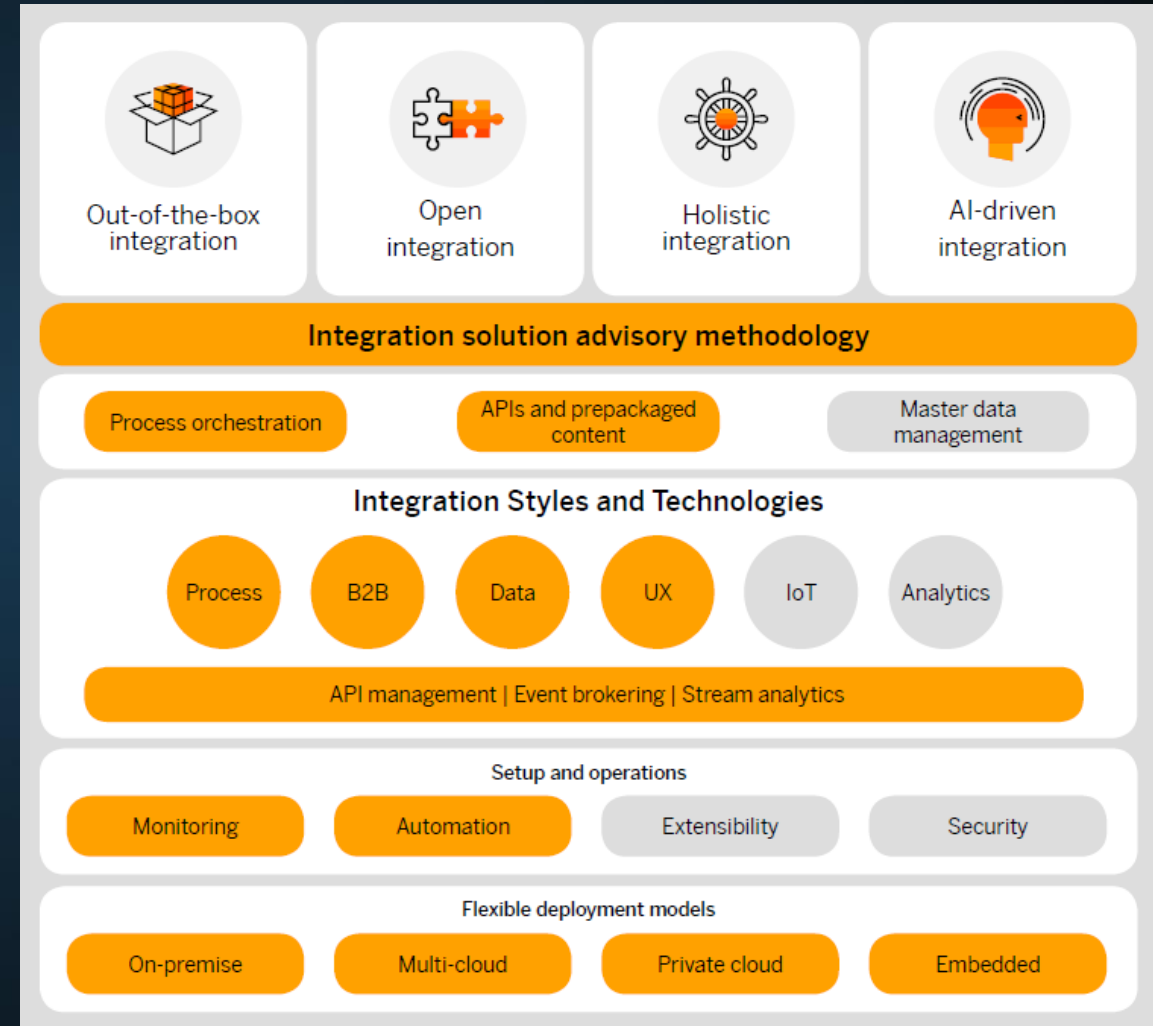
SAP Technology Recommendations

CIO Guide: Process and Data Integration in Hybrid Landscapes

2018 | 2019

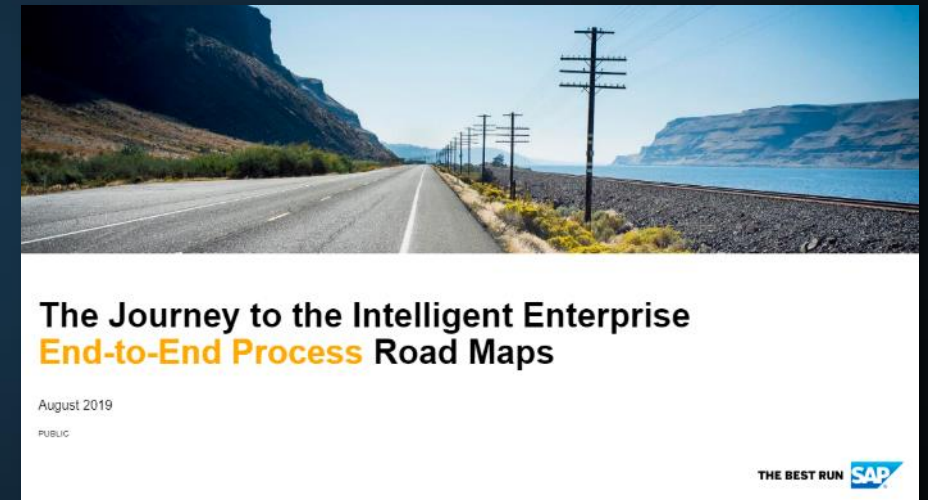
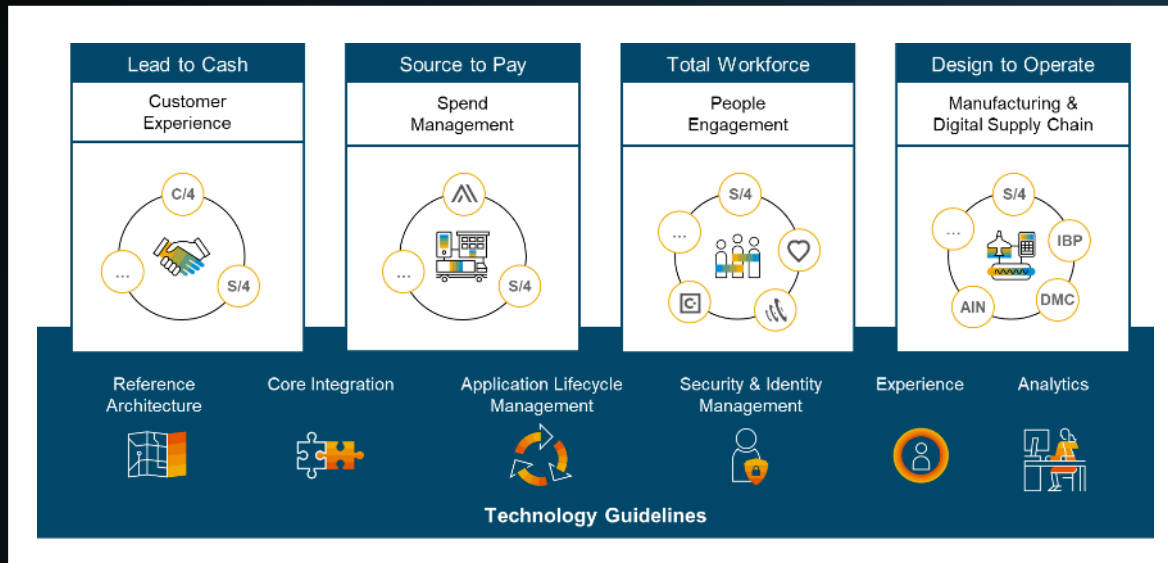


[Download](#)



Integrated end-to-end Roadmap

The journey to the Intelligent Enterprise



[Download](#)

SAP executes on its Intelligent Enterprise strategy along four end-to-end business processes based on well defined technology standards.

DELIVERING the Intelligent Enterprise Strategy and Vision

End-to-End Processes



Lead to
Cash

Design to
Operate

Total Workforce
Management

Source to
Pay

Business:
End-to-end processes with industry components

Architecture Standards



Reference
Architecture



Core
Integration



Application Lifecycle
Management



Security & Identity
Management



Experience



Analytics

Technology:
Integration & embedded intelligence

Go To Market Approach



Embedded
Intelligence



Intelligent
Technologies



Guided
Outcomes



Open
Innovation

GTM:
Tangible offerings available today

Vision

Strategy

Deliver Value Now

Combine Intelligent Technologies with Intelligent Suite Applications to Deliver Business Outcomes



A Guided Outcome is a solution with a **defined business outcome** that:

- draws on the correct solution capabilities and products from **across the SAP portfolio**
- addresses an end-to-end process, leverages intelligent technologies, or both to help a customer along their journey to become a more Intelligent Enterprise
- is a flexible bill of materials, so that customers can only add what they need to achieve the outcome



SAP Guided Outcomes for
Cost Optimization



SAP Guided Outcomes for
Revenue Growth



SAP Guided Outcomes for
Total Workforce Management



SAP Guided Outcomes for
Customer Experience



SAP Guided Outcomes for
Product and Service Excellence

Intelligent Technologies Packages



Embedded
Intelligence

NEW: Silver

NEW: Gold



Available now for all LoB
Solutions



SAP Intelligent
Robotic Process
Automation



SAP Conversational
AI



SAP
Machine Learning
Foundation



SAP Cash
Application*



SAP
Analytics
Cloud for BI

*Intelligent capabilities
included*



***Perform tasks, interact, and learn:** for organizations
looking for increased capabilities driven from the latest
innovative technologies*



***Understand and predict,** to
drive further contextual and
confident decisions*

* Included for SAP S/4HANA only

Available now for SAP S/4HANA, SAP C/4HANA and SAP SuccessFactors

Think Big, Start Small, Move Fast.

Customer Journey to the Intelligent Enterprise: Modular, Value-driven Approach

Start **Intelligent Technologies**

Leverage existing data to detect patterns, predict outcomes, and suggest actions



Start **Intelligent Suite**

Automate day-to-day business processes and better interact with customers, suppliers, employees

- Move to the Digital Core S/4 HANA
- Innovate at the edge by migrating LoBs to best-in-class cloud solutions that have intelligence embedded in them

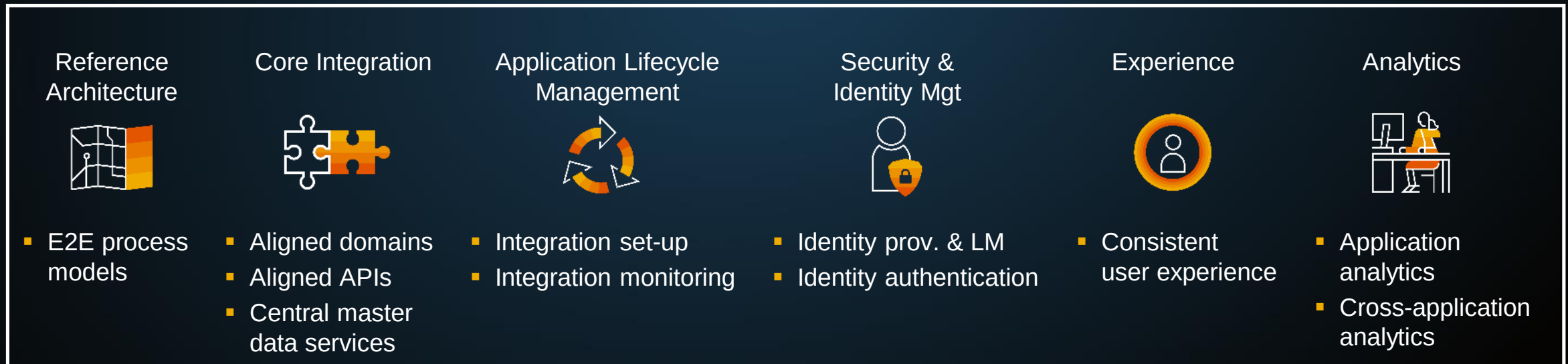
Start **Digital Platform**

Adopt a data-driven digital platform for the Enterprise

Discover the integration DNA of the Intelligent Suite from SAP

Key takeaways

- Focused execution of the Intelligent Enterprise across **four key end-to-end processes** that cover the entire value chain
- **Seamless experience** based on standardized technologies are consistently applied to all SAP applications belonging to the Intelligent Suite to deliver truly integrated business processes
- Get started with becoming an **Intelligent Enterprise**: LoBs, Suite, Platform, Technologies
- **Technology Guidelines** in focus for 2019 and 2020*:



*Roadmap topics (Subject to change)

Thank you.

Contact information:

Kathrin Heyd

Kathrin.heyd@sap.com

 @heykathrin

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