



TMHNA – MSIS Final Project

Team 30

Vivi Armacost, Kyle Kempin, Loc Nguyen, Shivali Pathak

Meet the Team



Vivi Armacost
Varmacos@iu.edu



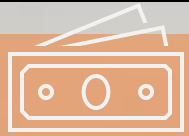
Kyle Kempin
kkempin@iu.edu



Loc Nguyen
Nguyenld@iu.edu



Shivali Pathak
shipath@iu.edu



Agenda



INTRODUCTION



FINANCIALS



RECOMMENDATION



RISKS & MITIGATION



IMPLEMENTATION



CONCLUSION

1

Introduction



TMHNA is the industry leader in forklift sales and is composed of two main subsidiaries – TMH & Raymond



MARKET POSITION

Toyota Material Handling, NA - Toyota Material Handling U.S.A., Inc. and The Raymond Corporation, is a trusted source of both quality and reliability together holding 38.1% of the market share. One in three forklifts sold in North America is either a Toyota or Raymond product.



COMPLEX LANDSCAPE

TMHNA has a complex IT landscape that limits their capability to go digital at scale and orchestrate processes and share resources at an organizational level hindering the ability to make enterprise and subsidiary decisions using real-time data analysis.



LANDSCAPE TRANSFORMATION

TMHNA would like to transform to a digital core built around SAP S/4 HANA with a unified persona-based interface provided via a portal-based experience from the currently used SAP ECC 6. Additionally, centralization is desired on siloed systems – CRM, Procurement Systems, Planning Systems etc.



WE ANSWER

How do we migrate to SAP S4/HANA while creating an integrated platform that leverages a 2 businesses 1 channel model of operation and can be customized for all stakeholders?

Current and Desired State for TMHNA's IT Capabilities

CURRENT STATE

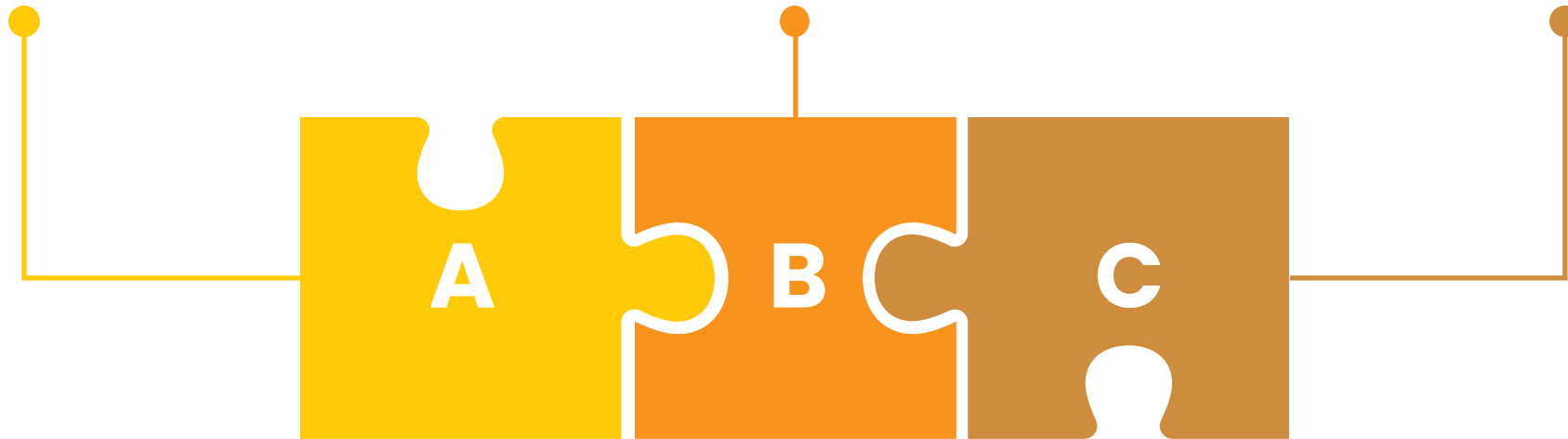
TMHNA has a complex IT landscape that supports two subsidiary companies- TMH and Raymond in a 2B2C model.

ACTION PLAN

Merge systems, selective product lines and migrate to S4/HANA to increase the capability of TMHNA's IT infrastructure to support both subsidiaries.

DESIRED STATE

TMHNA would like to operate on a 2B1C model - merging application infrastructures and sales channels.



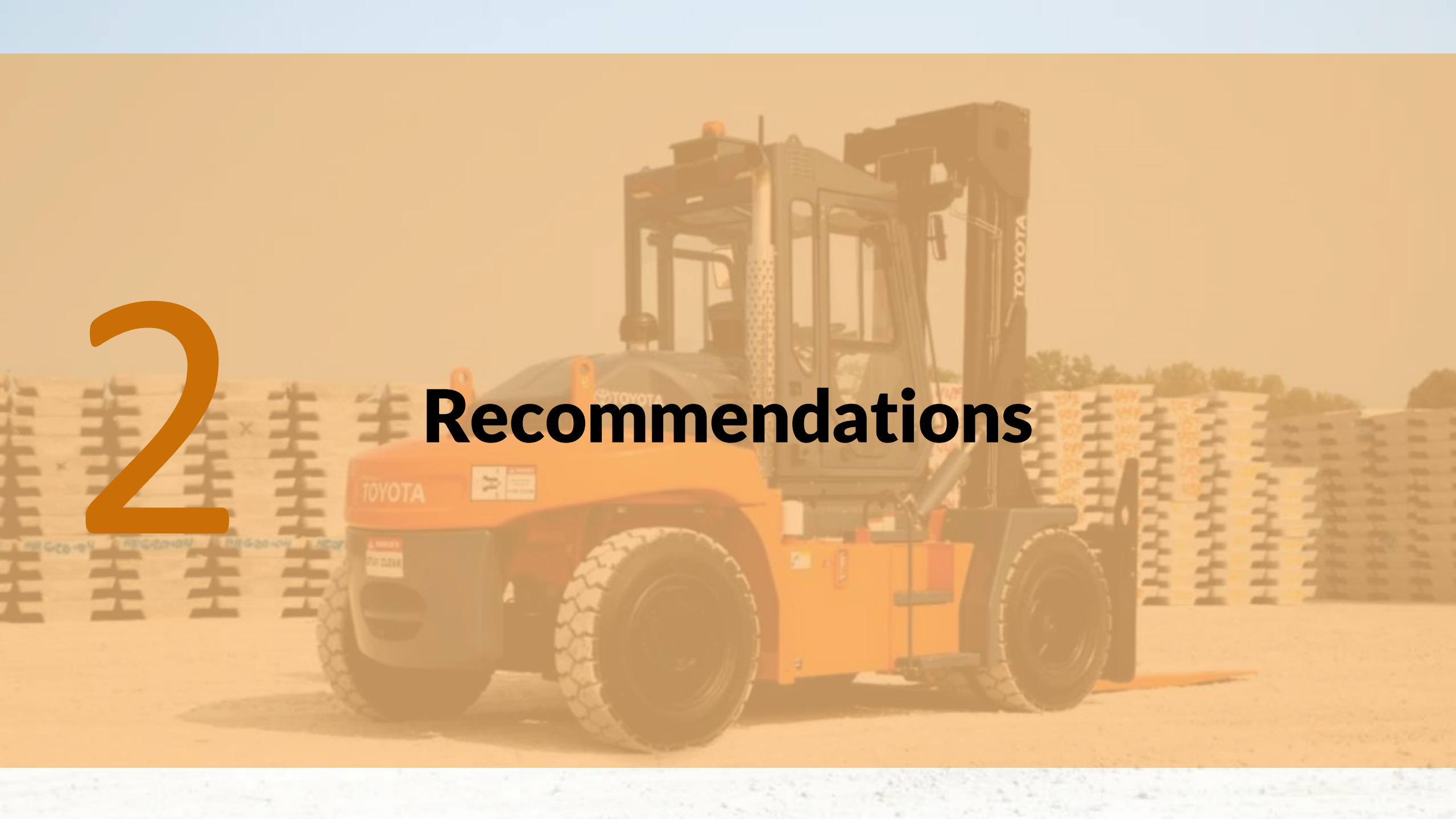
Migration from ECC to S4/HANA for cross-subsidary process unification. Embed CRM and other upper tier applications on top of the singular SAP instance.

Brief dealers and vendors about the changes in interfaces and user tier applications on account of the merger.

Prioritization of processes/projects during migration and identifying sales channels for common/similar products between subsidiaries.

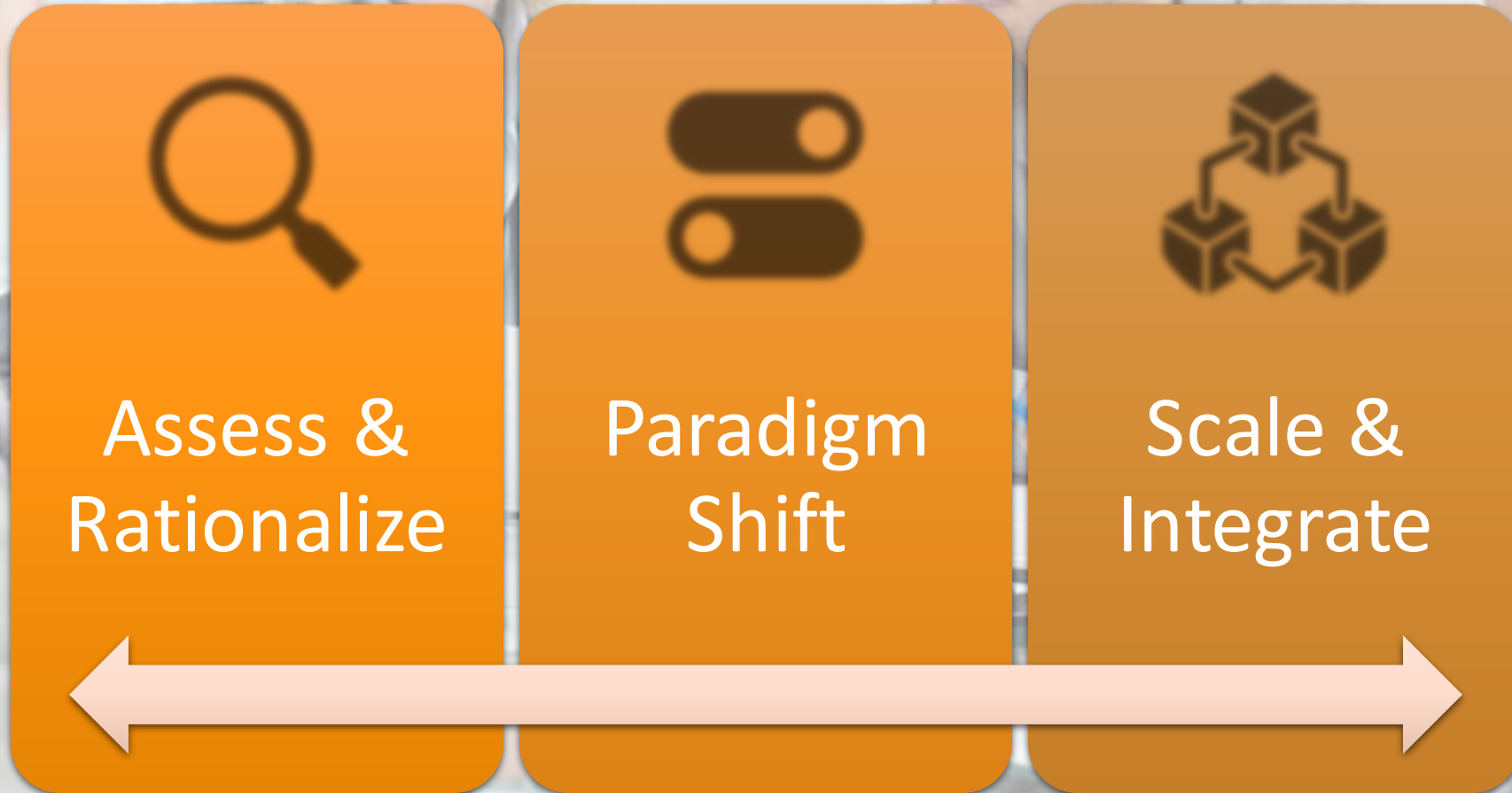
2

Recommendations

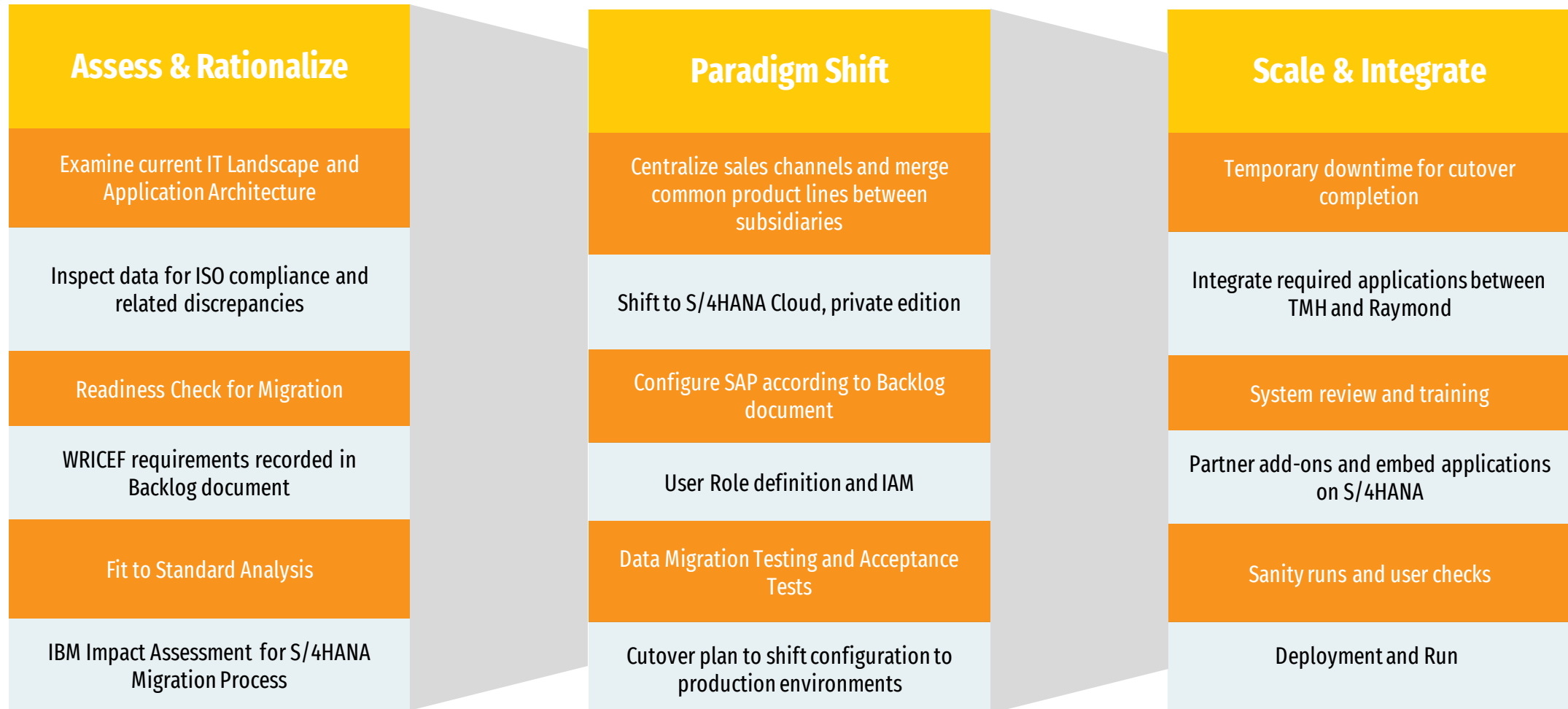




Transforming TMHNA's landscape to achieve go to scale digital capabilities across both subsidiaries

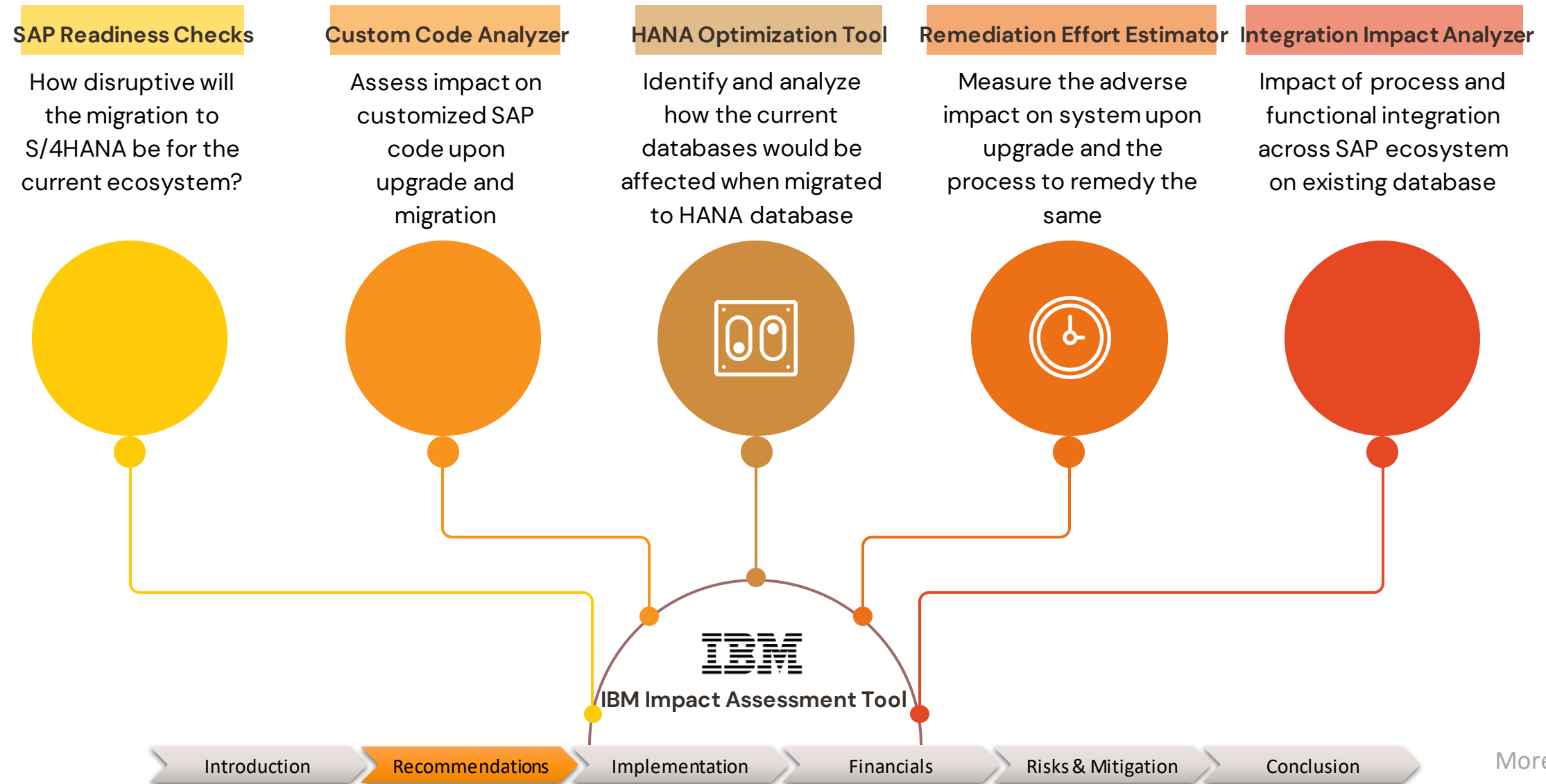


Transforming TMHNA's landscape to achieve go to scale digital capabilities across both subsidiaries

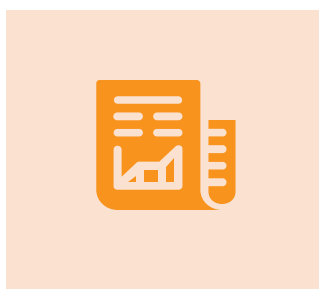




IBM Impact Assessment as a precursor to creating a migration roadmap for TMHNA's IT Landscape

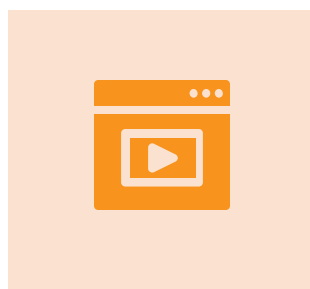


Key features of the migration process to SAP S/4HANA



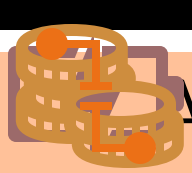
BUSINESS PROCESS MIGRATION

- Utilize outputs from assessment
- Identify key processes to migrate
- Map to SAP Best Practices



APPLICATION INTEGRATION

- Identify deployment platforms
- Connect applications to core HANA
- Centralization for all personas



Adopting a smart brownfield implementation approach for efficient and optimized migration



Key activities

Check compliance with the following functional requirements:

- Dual-Stack Split
- Conversion to Unicode
- Activation of SAP New General Ledger

- Creating a shell copy of the leading system with existing implemented processes.
- Perform SAP System Landscape Optimization (SLO) tool-based migration of a selected or the full data scope

- Selective Data Migration
- Business Process evaluation through KPI analysis
- E2E process improvement using Process Flow Insights and Business Process Analytics

- Lift & Shift existing processes that do not need enhancements
- Migrate enhanced processes
- Decommission legacy database

Success Metrics

Near-zero downtime



Selective conversion made possible

Reduced migration costs

No ownership costs for legacy systems

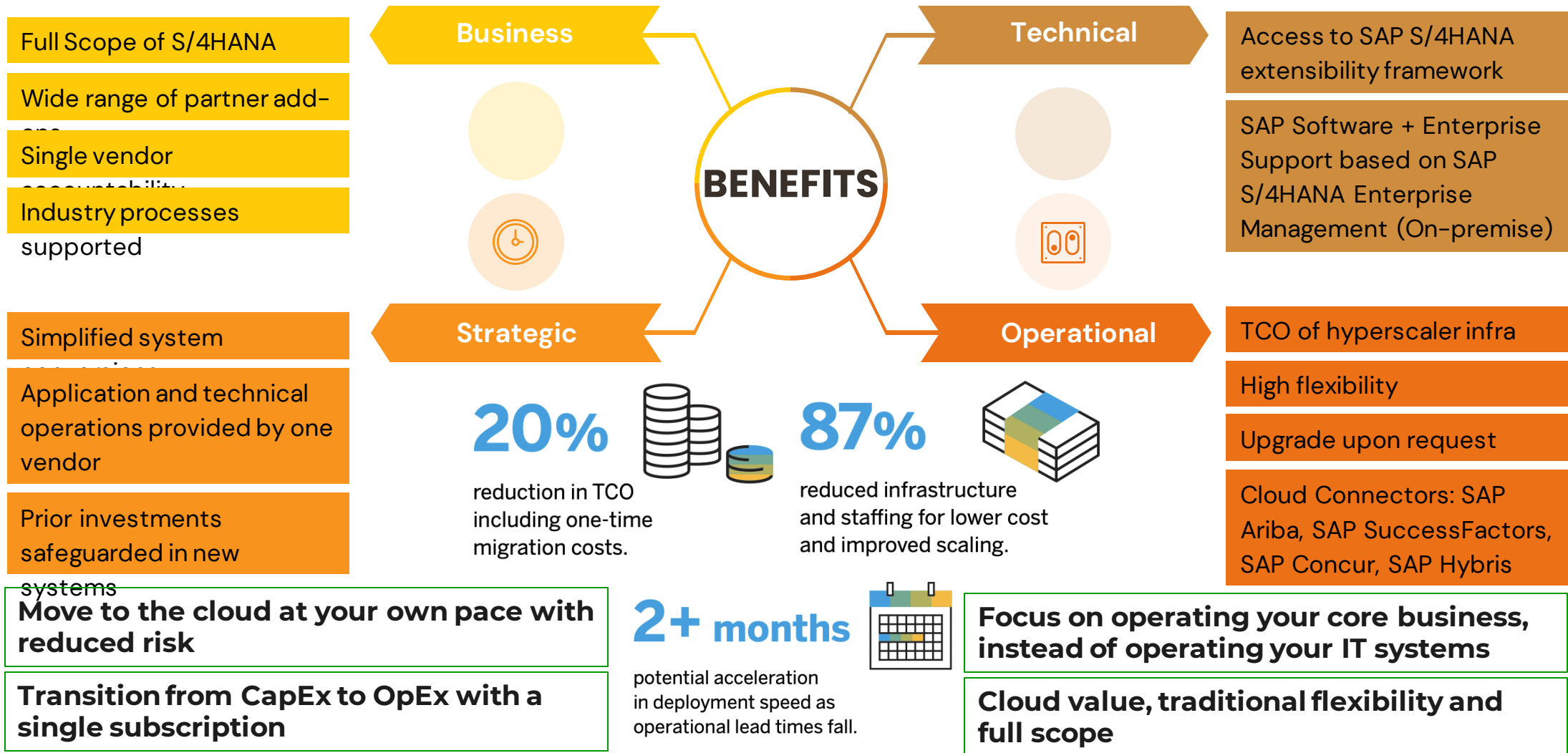


RISE with SAP delivers business transformation as a service in a comprehensive package



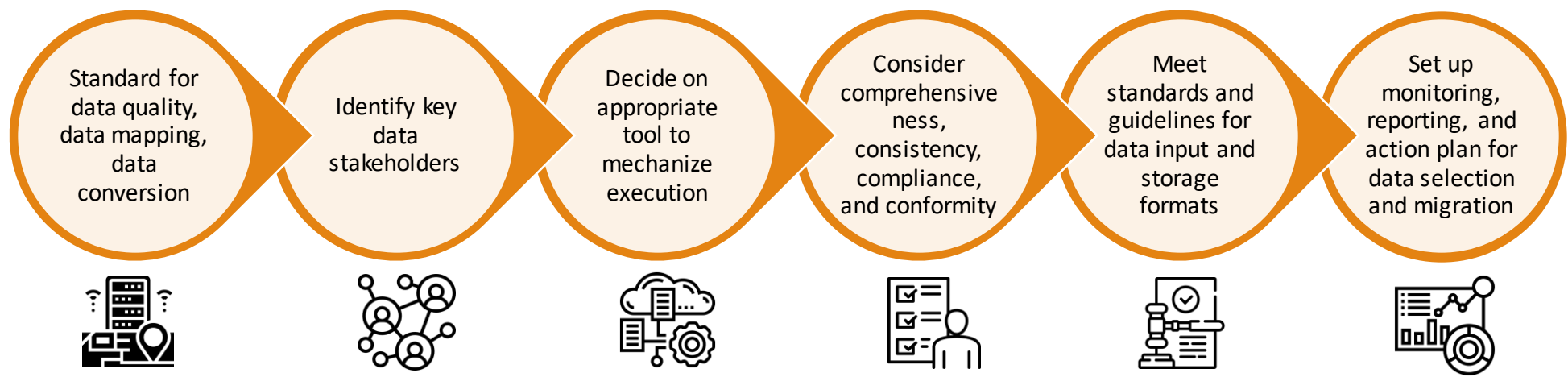


Leveraging the S/4HANA Cloud, private edition packaged in RISE with SAP gives us...



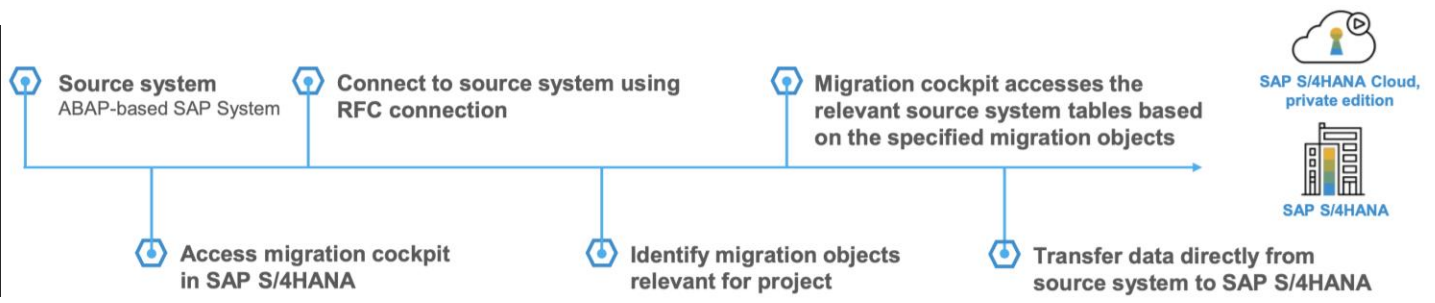
Data Migration with S/4HANA Migration Cockpit – included in SAP S/4 HANA License

Preparation

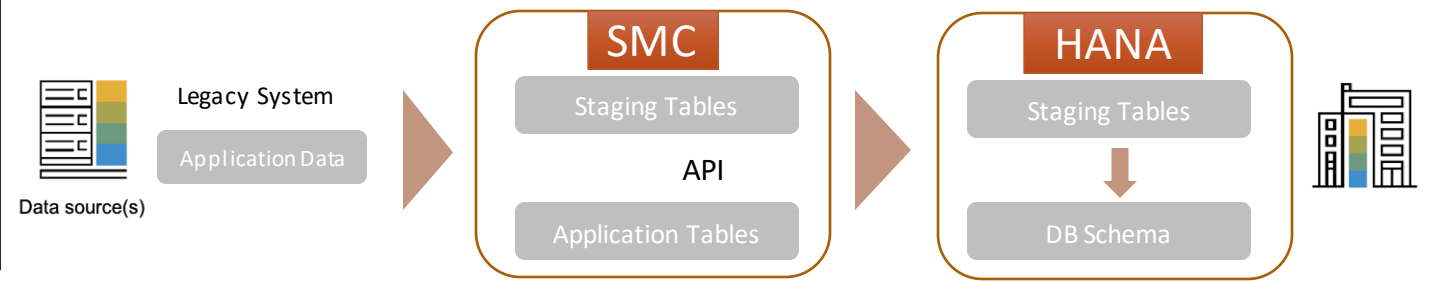


Migration

Direct



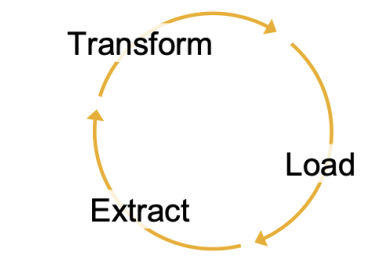
Staging Tables



Direct vs Staging Tables

- Existing data formats
- ECC process objects
- Migration Strategy
- Object Modelers

Benefits



Lower migration time and costs

Data load



+250 Migration objects

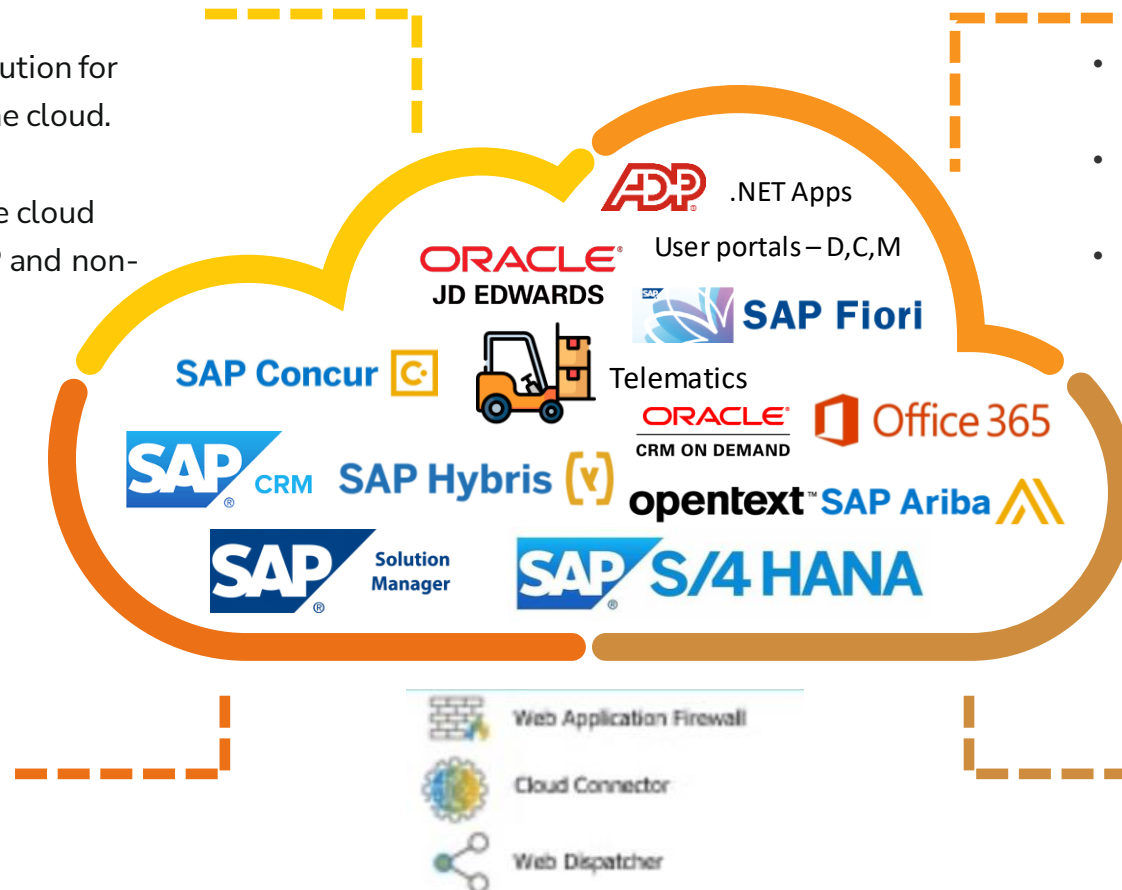
Integration of applications and third-party add-ons will be made possible with CPI – *provided as part of RISE with SAP*

CLOUD PLATFORM INTEGRATION SUITE

- CPI (Cloud Platform Integration) is a solution for integrating different systems through the cloud.
- It is a part of the SAP CPI Suite.
- Cloud-based middleware used integrate cloud and on-prem apps with third-party SAP and non-SAP apps

BENEFITS OF CPI

- Integrate heterogeneous systems across your IT landscape
- Integrating data in synchronous and asynchronous scenarios.
- This feature significantly reduces your integration time and reduces the need for in-house development.



RISE WITH SAP

RISE with SAP offers cloud connectors that enable integrations across applications on the cloud landscape

UNIFIED DOMAIN MODEL

- Process Integration
- Data Integration
- 3rd party data and apps
- API connections
- B2B partners



How should TMHNA choose and evaluate service providers for the upcoming migration process?

Top 4 Providers based on overall satisfaction

Deloitte.



pwc

Cognizant

Infosys[®]
Navigate your next

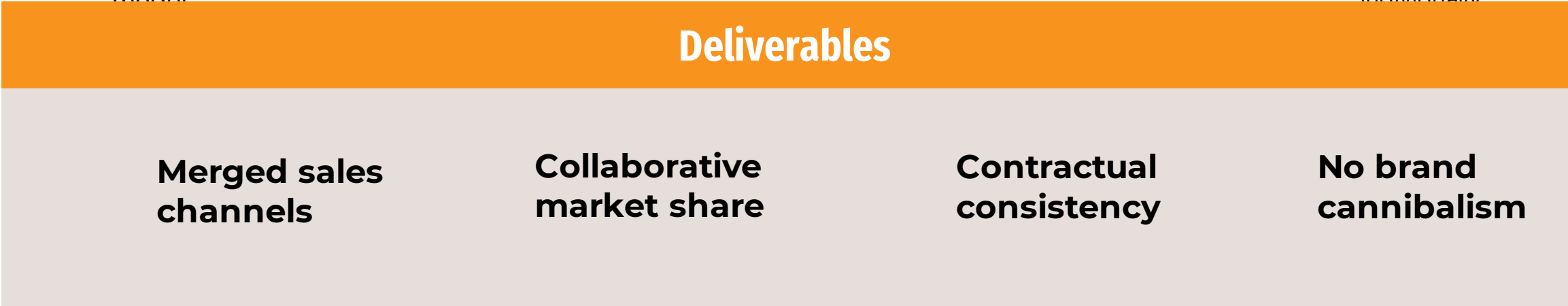
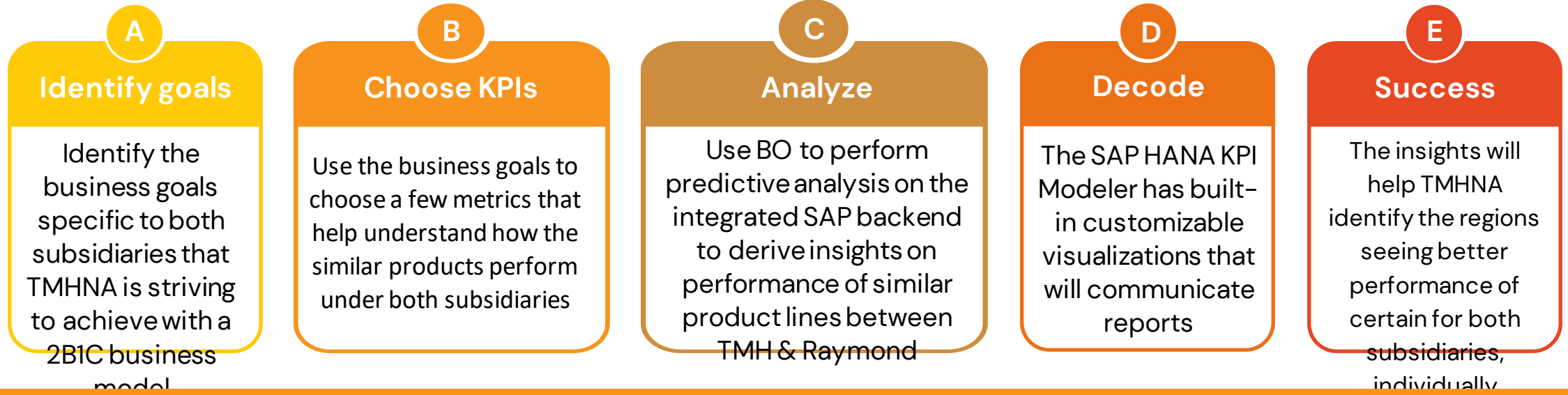
Criteria used to assess each of the 22 companies in the study

	Organizational change management		Vision and thought leadership
	Value for money		Contracting practices
	Quality of functional expertise		Quality of technical skills
	Innovation realized		Proactiveness
	Continuity of staff		Relationship management
	Quality of integration skills		Desire to “go the extra mile”

[Gartner \(2020\)](#)



Complementing KPI Analysis and Modeler results to eliminate overlap of product lines in a single sales channel





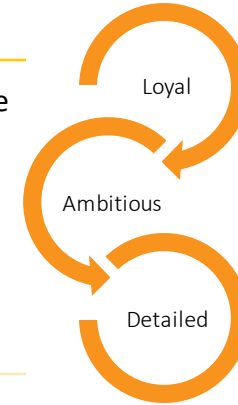
Toyota Employee Persona – Jillian Zeitzer, Production Manager



Associate – Production Manager Position Summary

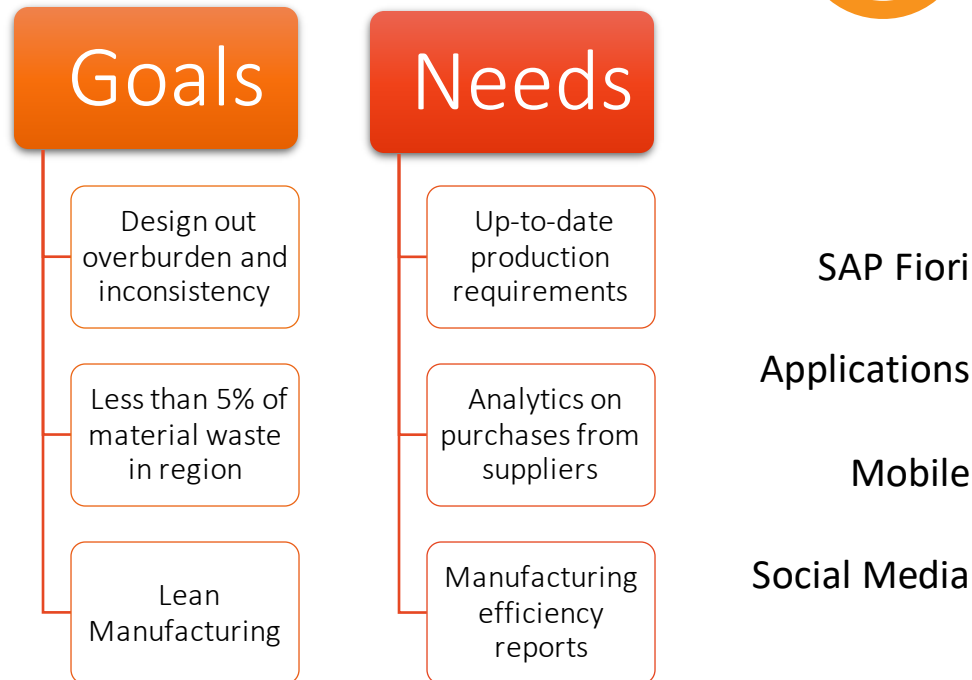
The Quality Assurance Associate's primary duty is to ensure the timely and accurate assembly of Toyota Material Handling products by inspecting elements to ensure overall quality of new material handling equipment and to support overall manufacturing goals.

Biography Jillian has worked for sales at TMH for 14 years. She graduated with a degree in Operations Management and Finance from the University of Michigan's Ross School of Business. She is in the Northwest region of the United States. Jillian is always looking for more ways to improve and is pursuing a nighttime MBA program.



Pain Points

- No analytics collectively across both subsidiaries
- Unable to share resources and optimize procurement
- Deviation from 2B1C thus giving rise to inconsistency



Wireframe of a typical TMHNA production manager's dashboard

Home ▾



Dashboard

Apps

KPI Dashboard

Click for details



Apps

Planned Orders

Click to open



Production Orders

Click to open



Link to Fiori Dashboard:

<https://standard.build.me/prototype-editors/api/public/v2/prototypes/61b81e3b0eb5f201d500a149/snapshots/latest/artifacts/index.html#Shell-home>

SAP Fiori and KPI Modeler will help users like Jillian achieve their goals and curve their pain points on one interface

Role-based

Designed for the needs and objectives of users. The SAP library offers over 600+ icons, and over 200+ user-interface concepts, including charts, maps, and other resources.

Responsive

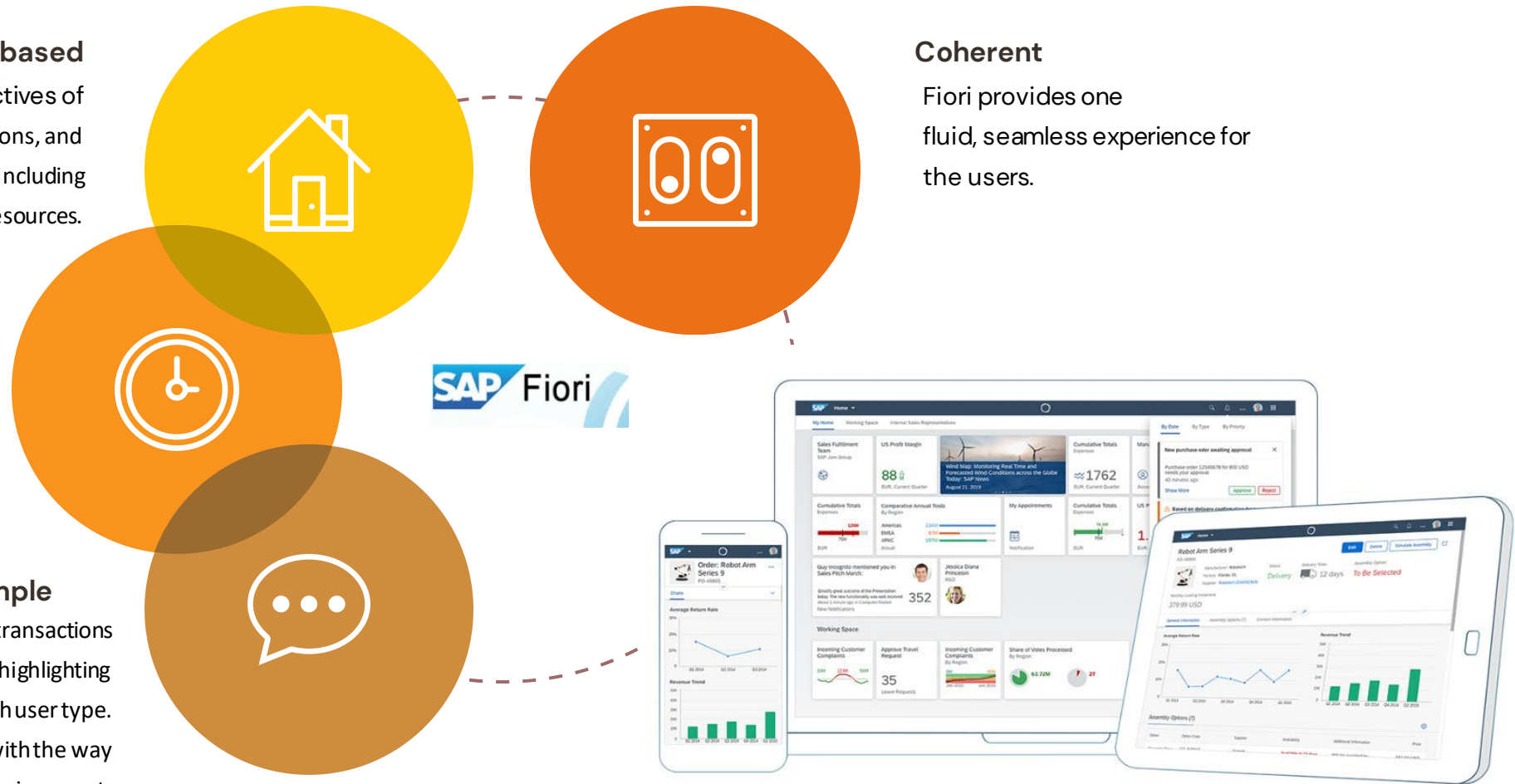
Supports how and where users work. The underlying API provides easy access to live data, with much greater speed compared to conventional methods.

Simple

Fiori reengineers and groups various transactions and roles into interactive applications, highlighting the most relevant information for each user type. The easy role-based navigation gels in with the way the user works and the environment.

Coherent

Fiori provides one fluid, seamless experience for the users.



<https://blogs.sap.com/2021/03/31/sap-fiori-for-sap-s-4hana-recommendations-for-transitioning-users-from-sap-gui-to-sap-fiori/>
<https://blogs.sap.com/2019/03/11/how-sap-fiori-helps-improve-regular-business-functions-and-various>

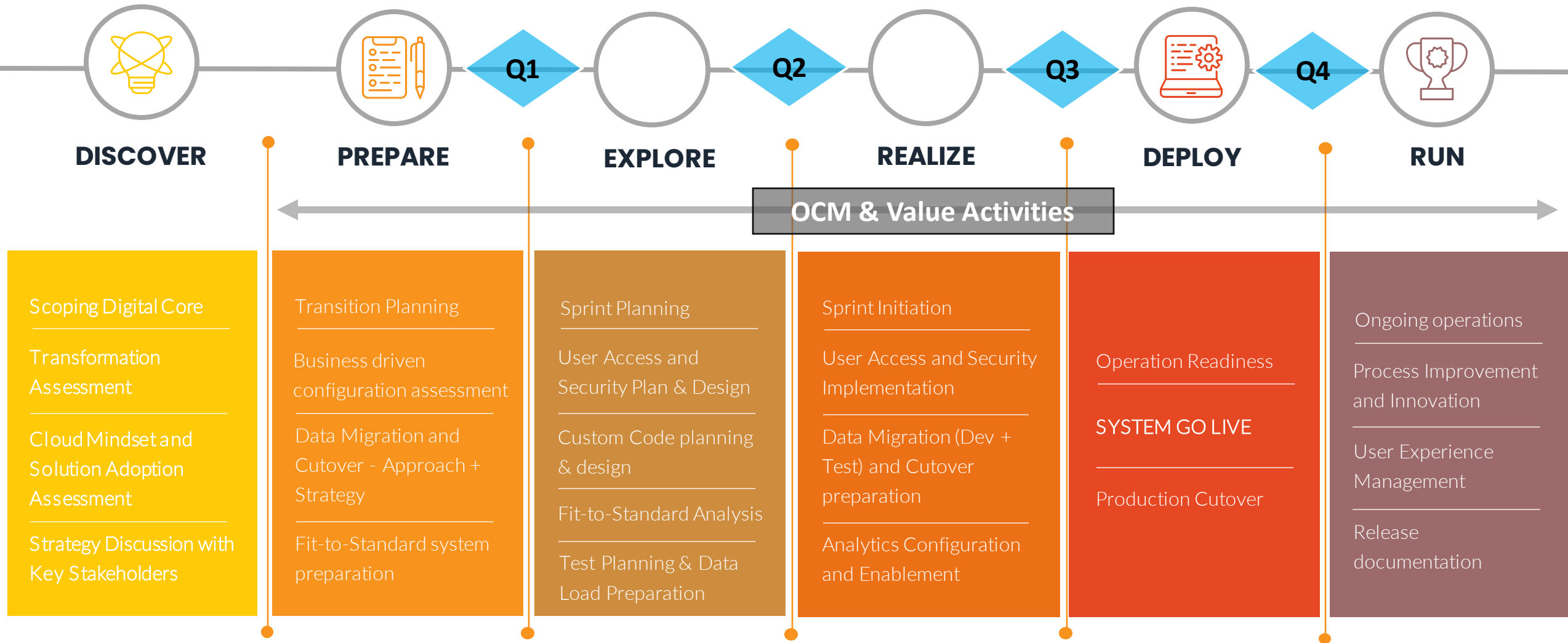
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Implementation

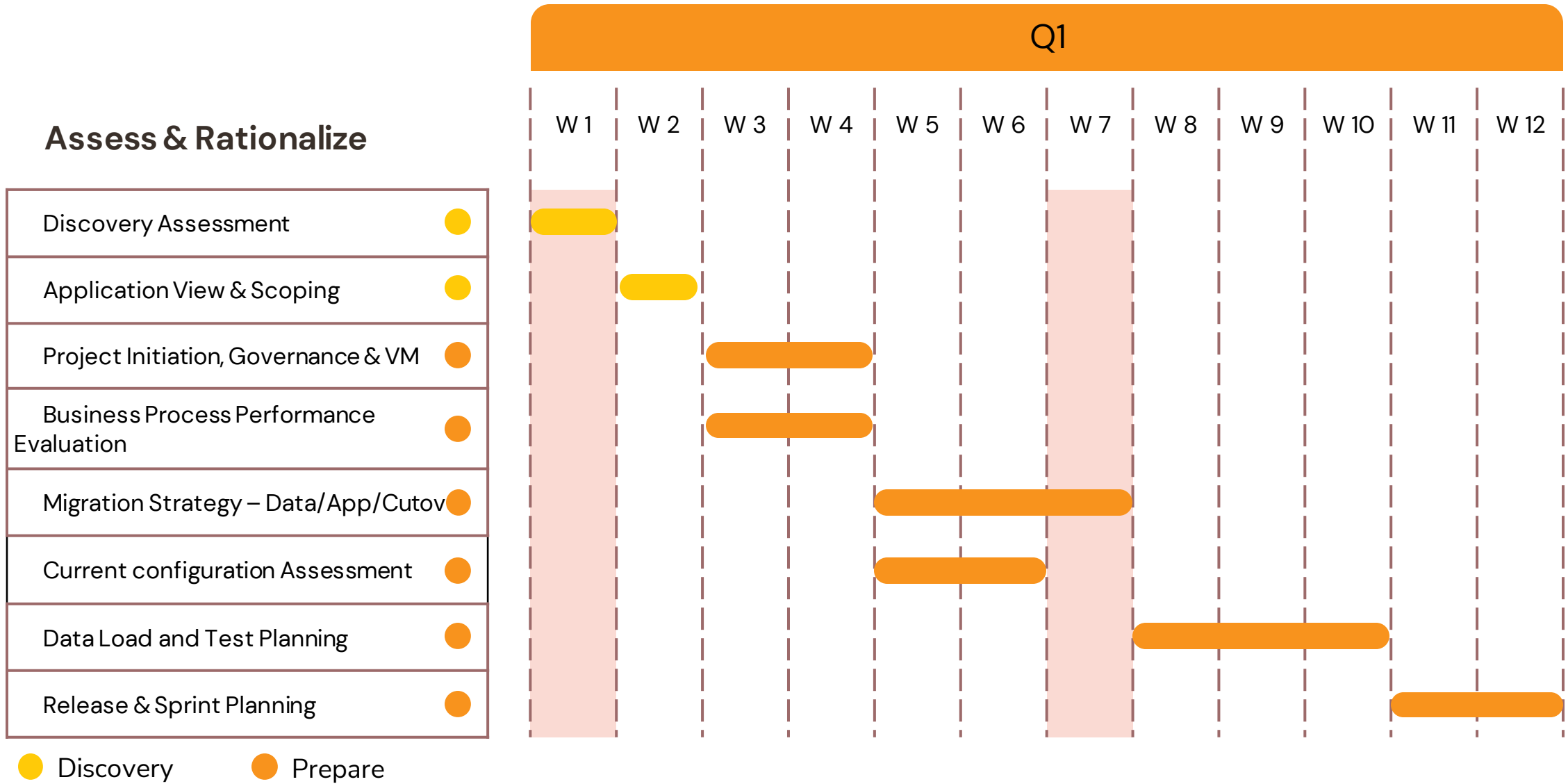




Overview of the milestones of the migration process that will be adopted as part of our solution – *adopted from the SAP Activate Framework*



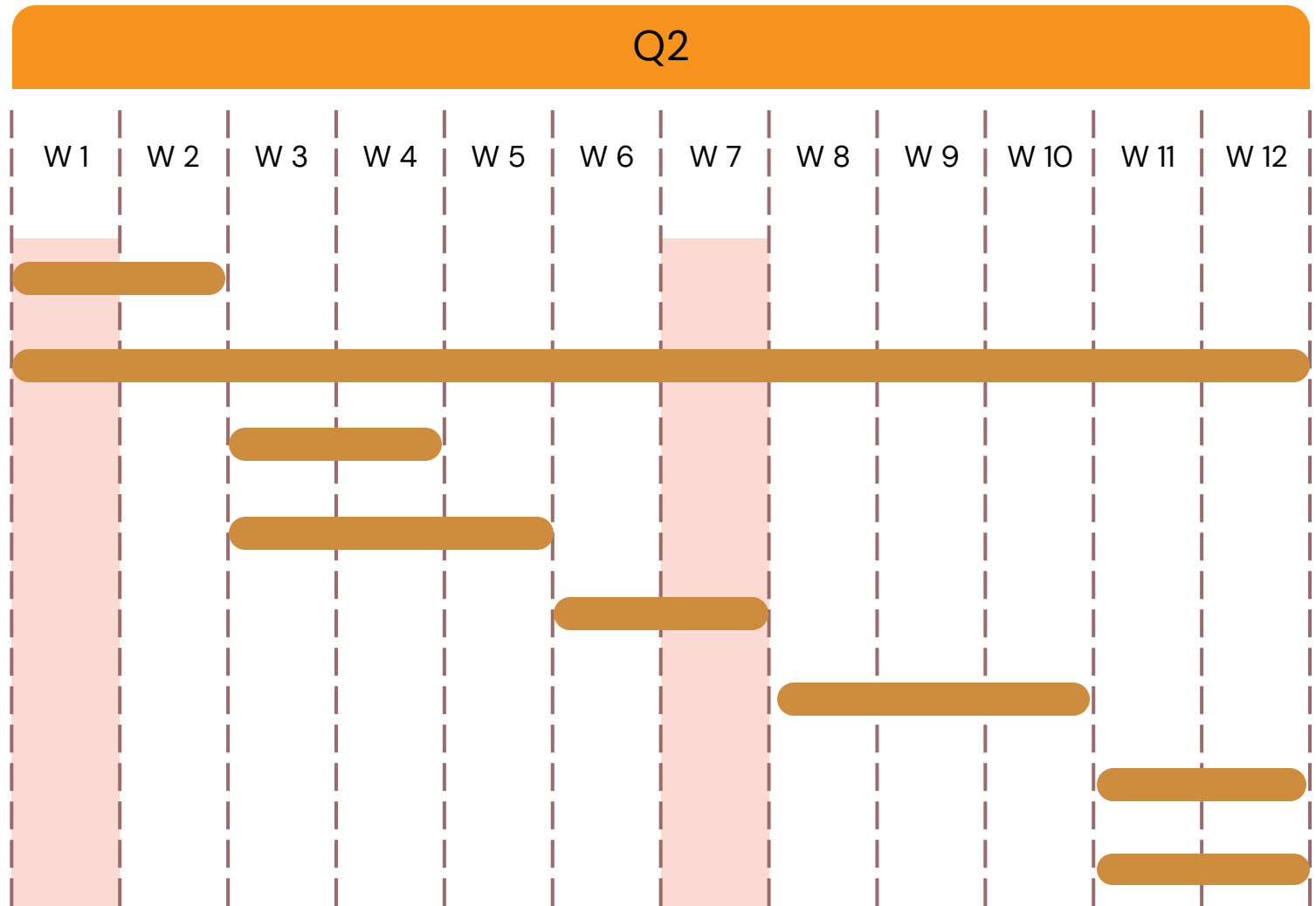
The implementation is expected to span over a period of 1 year



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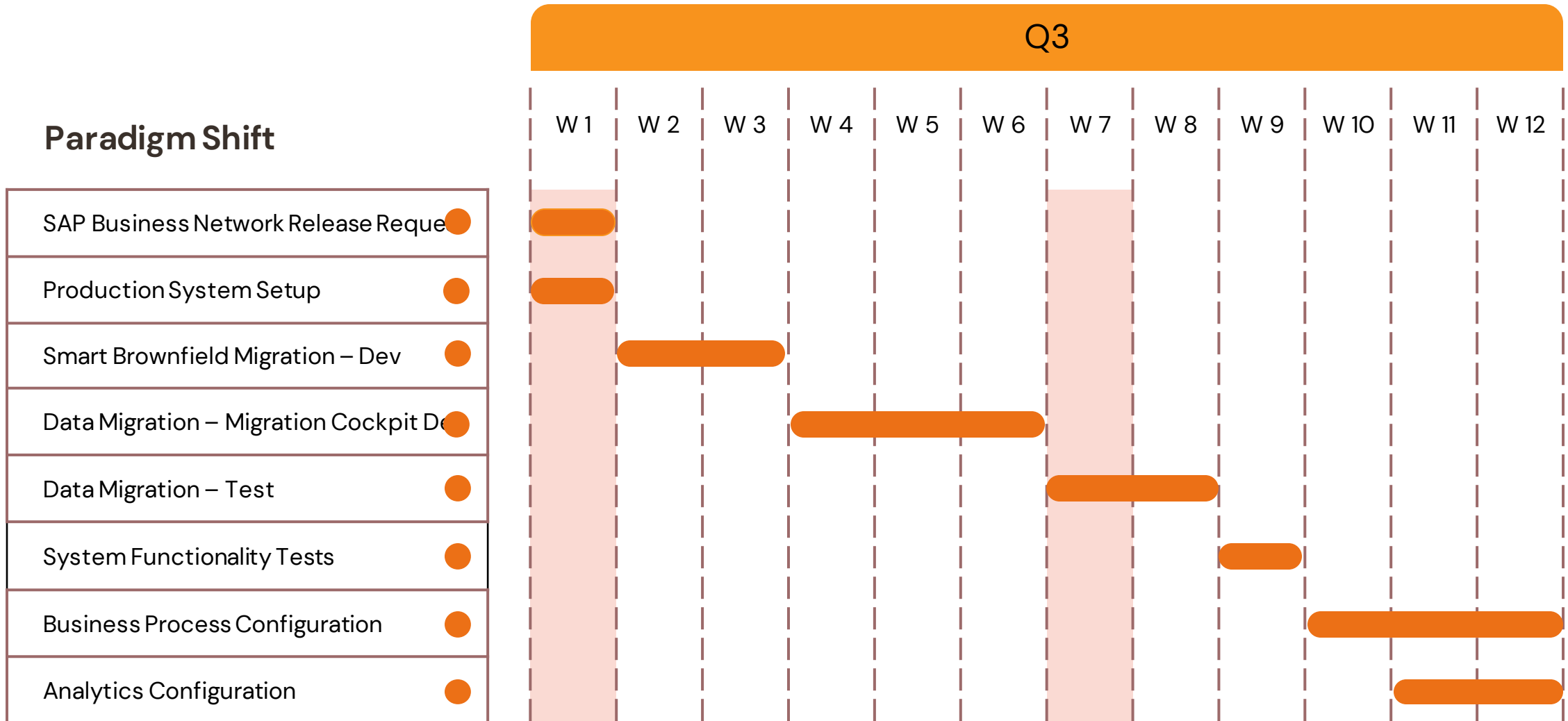
Assess & Rationalize

Fit-to-Standard Analysis	●
Design Planning and Documentation	●
User Interface Design and Access Levels	●
Custom Code Planning & Design	●
Integration Planning & Design	●
Data Load Preparation	●
Test Planning	●
Analytics Planning & Design	●



● Explore

The implementation is expected to span over a period of 1 year



● Realize

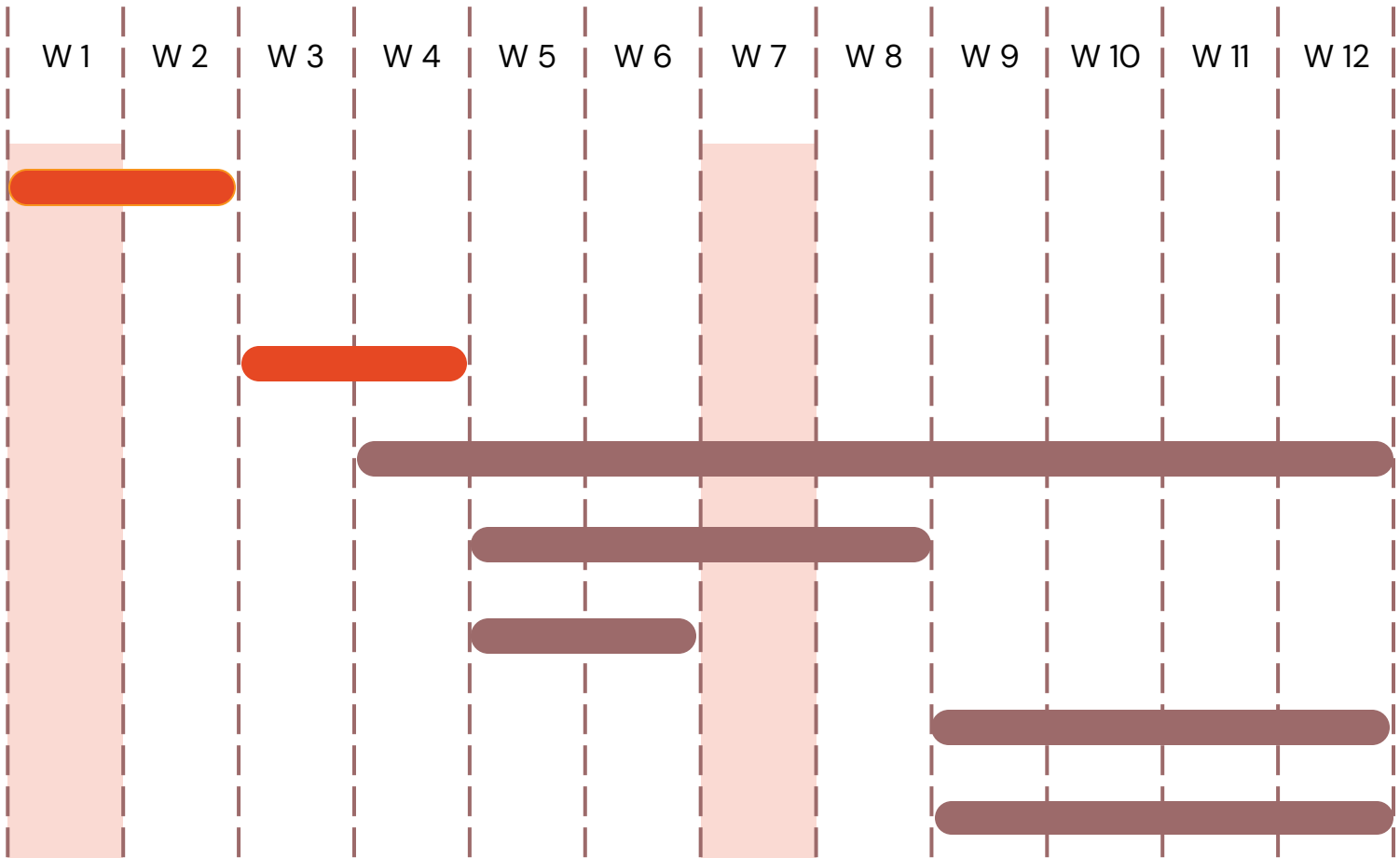


The implementation is expected to span over a period of 1 year

Q4

Scale & Integrate

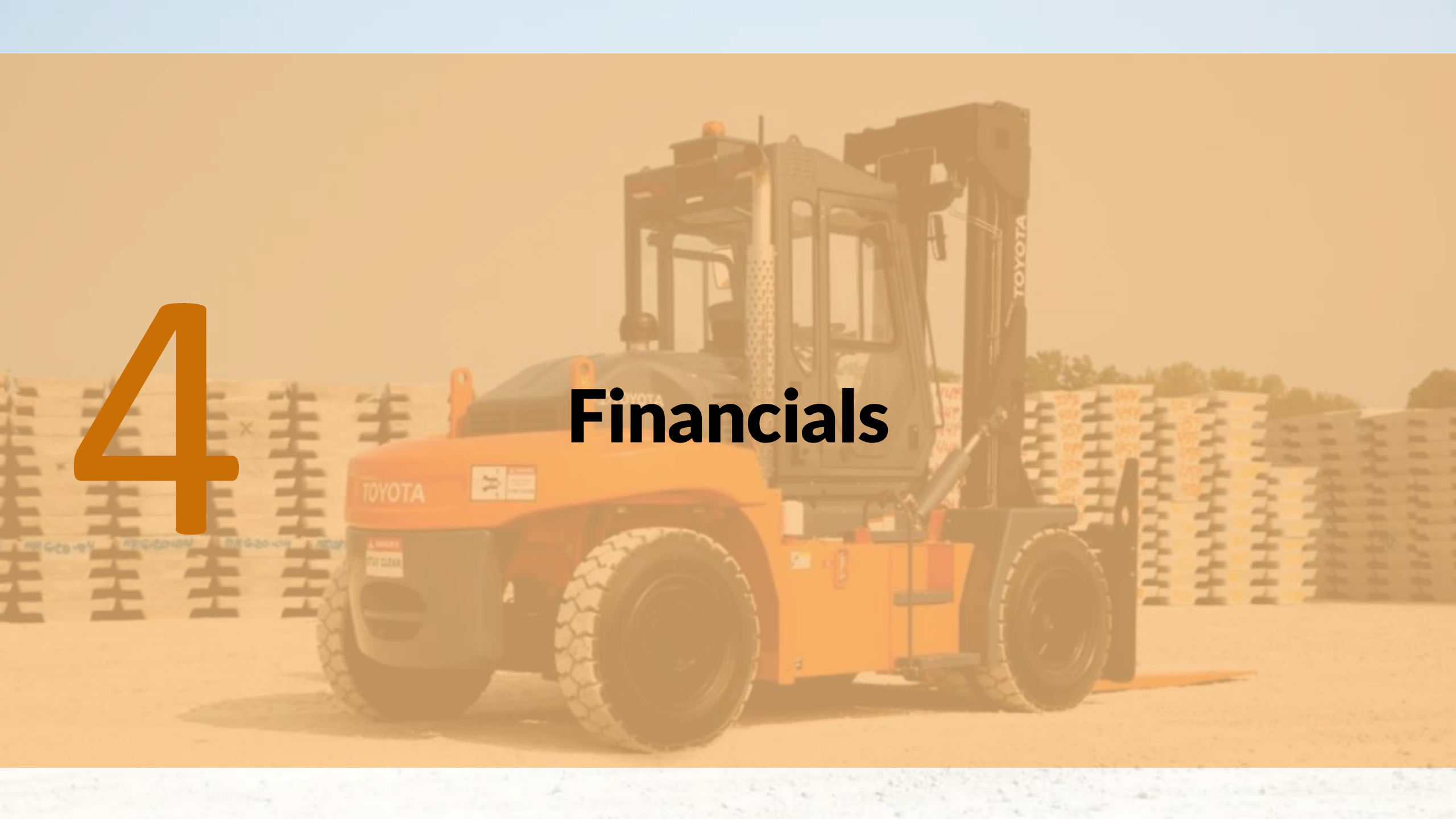
Deployment Check & Training	●
System Go-Live	●
Production Cutover	●
Business Process – Improvement	●
Application Integration	●
Portal Deployment and Integration	●
User Experience Management	●
Documentation Provision	●



● Deploy ● Run

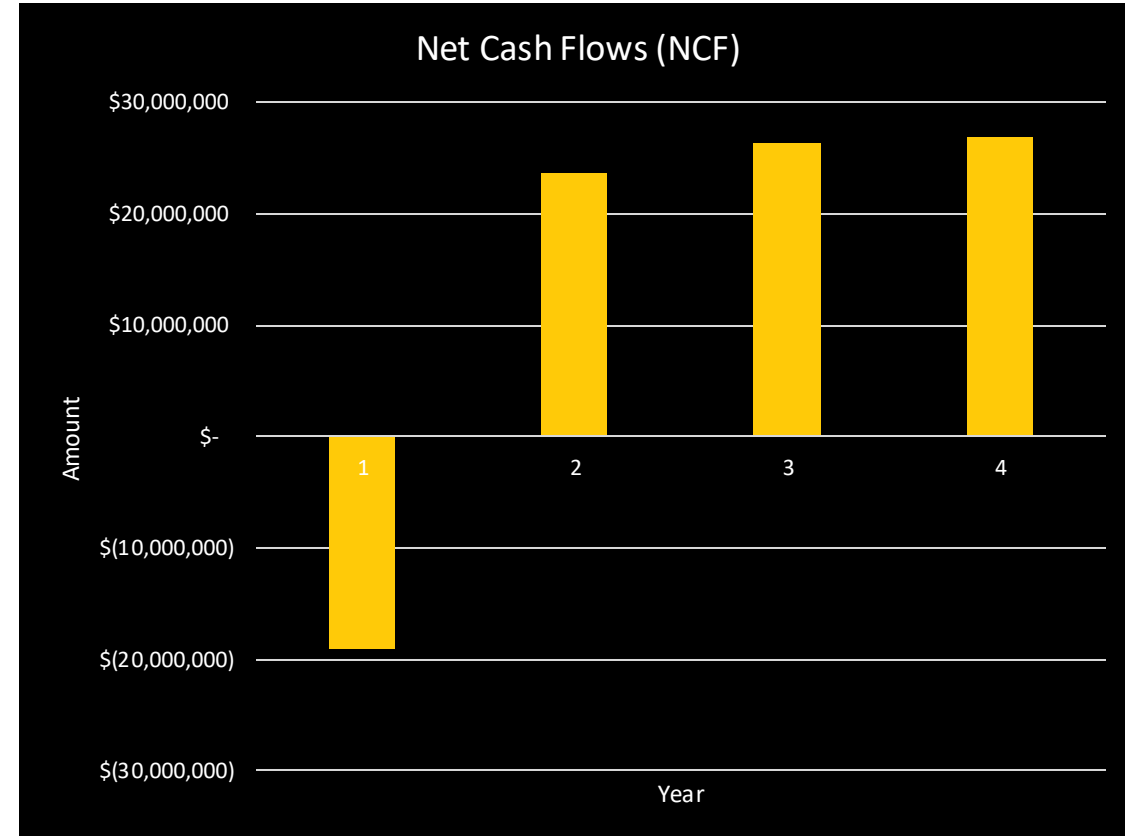
4

Financials



Financial Analysis

Period (Year)	0	1	2	3	
Costs					
One-Time (Non-Recurring Costs)					
Consulting Cost	\$	1,612,680			
Cost of SAP licenses	\$	3,000,000			
Cost of infrastructure for S/4HANA	\$	2,646,000			
Maintenance & Support (4 weeks post implementation)	\$	63,000			
Cost of staff to design, build, and manage transition	\$	9,011,169			
Training Cost for Users	\$	80,634			
Total One-Time Cost per Period	\$	16,413,483			
Recurring Costs					
S/4HANA Licenses	\$	660,000	\$ 660,000	\$ 660,000	
Running Support Costs	\$	182,000	\$ 182,000	\$ 182,000	
Total Recurring Cost/Period	\$	842,000	\$ 842,000	\$ 842,000	
Total Recurring Cost	\$	2,526,000			
Total Costs (One-Time and Recurring)	\$	18,939,483			
ROI Calculation					
Net Cash Flows (NCF)	\$	(17,414,814)	\$ 24,717,419	\$ 26,899,379	\$ 26,899,379
ROI (Running Total)		201.51%			
Payback Period		13 months			



3-year gross profits
\$61.9M



Payback period
13 months

5

Risks & Mitigation



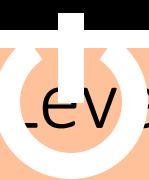
Risks and Mitigations

Risks	Risk Profile	Mitigation Strategies
Data Migration		To prevent data migration issues, TMHNA will perform data migration testing and extract, transform, load testing. Data migration tests help verify the functionality of migrated workloads before migration. The implementation team will assess the current data scenarios and decide on the appropriate tools and solutions for TMHNA. Available tools offered by SAP are BODS, BDC, Rapid Data Migration Architecture.
Security Vulnerabilities		With S/4HANA private cloud, there is a multi-tier security paradigm that ensures Data Security, Network Security, Application Security, Operational Security and Audit and Compliance.
Web Applications		The applications between the subsidiaries will be different. It will be critical to choose single instances of applications that need to be shared for analytics reasons based on performance.
Data Integration		It is critical to ensure data is clean and reliable. This can be achieved by continuously performing end to end testing on data sources, integrators, and connected organizations.

6

Conclusion





Leveraging these 5 strategies will allow TMHNA to massively benefit from their upcoming SAP ECC to SAP S4/HANA Implementation

RISE with SAP

Using 'business transformation as a service' allows TMHNA to maintain one contract while availing all services enabling cloud migration with ease of implementation, deployment and maintenance

Smart Brownfield Approach

The best S4/HANA approach for TMHNA, due to its flexibility and the overall fit that it offers for what TMHNA is trying to do (system conversion/migration).

SAP Activate Framework

Six phased approach that will ensure TMHNA successfully gets from end to end in their implementation, smoothly and efficiently.



S4/HANA Private Cloud Edition

SAP S/4HANA Cloud, private edition, delivers a new level of flexibility and security that was previously unavailable in a cloud solution and is the best choice for TMHNA.

Dealer-Customer-Supplier Portals

Persona-based unification of portals across TMHNA to merge sales channels while functioning as two brands.

A yellow Toyota forklift is the central focus, parked on a light-colored floor. The forklift has 'TOYOTA' written on its side and front. In the background, there are several stacks of wooden pallets. The entire image has a semi-transparent orange overlay. The text 'Thank you' is centered over the forklift.

Thank you

Appendix

Assumptions

Reasons to migrate SAP ecosystem to the cloud

IBM Impact Assessment Tool

IBM Impact Assessment as a precursor to creating a migration roadmap for TMHNA's IT Landscape

How IBM partners with RISE with SAP to provide a value driven service

How IBM partners with RISE with SAP to provide a value driven service

How IBM partners with RISE with SAP to provide a value driven service

Smart Brownfield

Overview of the Smart Brownfield Approach

Adopting Smart Brownfield migration will enable TMHNA to leverage existing investment while making selective enhancements

SAP S/4 HANA

Statistics on SAP S/4 Hana Responsiveness

Advantages of leveraging the S/4HANA Cloud, private edition packaged in RISE with SAP

Advantages of leveraging the S/4HANA Cloud, private edition packaged in

RISE with SAP

Advantages of leveraging the S/4HANA Cloud, private edition packaged in

RISE with SAP

Advantages of leveraging the S/4HANA Cloud, private edition packaged in

RISE with SAP

Integration within S/4 HANA across various SAP offerings – included in

RISE with SAP

Multi layer security with S/4HANA Cloud, private edition packaged in RISE with SAP

Landscape of S/4HANA Cloud, private edition packaged in

RISE with SAP

KPI Modeler

Eliminating brand cannibalism through utilization of the KPI modeler in SAP S4 HANA

KPI Reports utilized to compare sales between Raymond and TMH and to reach decisions on merging sales

KPI Variants will decide whether TMH or Raymond acquires dealers for common product lines

KPIs will be utilized to measure external industry trends in addition to cannibalization between the brands

SAP Activate Framework

The SAP Activate framework is a widely accepted approach to S/4 HANA migration

SAP Deployment on a hyperscaler private cloud using a SaaS model will allow for a lot of TMHNA

SAP Best Practices Explorer allows for TMHNA to better understand the best actions to take for migration

SAP Guided Configurations allow TMHNA and consultants to customize the incoming SAP system

SAP Activate Methodology will allow THMNA to reap the rewards of their new S4/HANA implementation

SAP ECC to SAP S/4 Conversion Approach

Details of the SAP Activate Framework and its Implementation

Appendix

The Phases of SAP Activate Framework

[The Discover Phase of the SAP Activate Framework](#)

[The Prepare Phase of the SAP Activate Framework](#)

[The Explore Phase of the SAP Activate Framework](#)

[The Realize Phase of the SAP Activate Framework](#)

[The Realize Phase \(2\) of the SAP Activate Framework](#)

[The Deploy Phase of the SAP Activate Framework](#)

[The Run Phase of the SAP Activate Framework, the final phase](#)

[Using the SAP Activate Framework will provide TMHNA with many improvements across the board](#)

Organizational Structure

[Stakeholders](#)

[S4/HANA Organizational Benefits](#)

[Organizational Change Management](#)

Data Migration

[Business Object Data Services \(BODS\)](#)

[Batch Data Communication \(BDC\)](#)

[Batch Data Communication \(BDC\)](#)

[Rapid Data Migration Architecture](#)

[S4/HANA Migration Cockpit \(Multiple Slides\)](#)

[S4/HANA Migration Cockpit – data migration objects](#)

[Data Migration with S/4HANA Migration Cockpit – Direct Transfer](#)

[S/4HANA Cloud, private edition landscape – CPI](#)

OCM

[OCM \(Knoster Model\)](#)

[OCM \(Consensus\)](#)

[OCM \(Skills\)](#)

[OCM \(Incentives\)](#)

[OCM \(Resources\)](#)

[OCM \(Action Plan\)](#)

Scores of Service Provider

[Deloitte](#)

[PWC](#)

[Cognizant](#)

[Infosys](#)

Financials

[Financial Breakdown](#)

[ROI Analysis](#)

[Business Process Evaluation and Improvement of E2E processes](#)

Risks and Mitigations

[SAP Configuration Risks and Mitigations](#)

[Risks and Mitigations with KPI Solutions](#)

[Approach to Multi-Layer Defense in Depth Architecture](#)

[Current State](#)

[Current State – Vendor Portals](#)

[Desired State](#)

[Desired State – Vendor Portals](#)

Additional User Personas

[Dealer Employee Persona – Michael Lim](#)

[Supplier Employee Persona – Piper Phillips](#)

[Toyota Employee Persona – Joe McCormick](#)

[Video Walk Through – Dealer Portal](#)

[Works Cited](#)

Assumptions

Since TMHNA uses a singular SAP Instance, we consider it to have a single instance of backend database that the core ECC interacts with. With one database instance, we assume that TMH and Raymond's data is standardized.

With the adoption of 2B1C model of business, we assume TMHNA would like to have singular sales channel i.e., dealers selling both TMH & Raymond products instead of working with separate contractual dealerships.

We assume that there are common/similar product lines between TMH & Raymond.

We assume TMH and Raymond to continue using their respective CRMs – SAP CRM and Oracle. With further information on an integration requirement and motivation to switch to one CRM, we can provide a solution for the same.

We have assumed TMHNA's annual revenue to be \$3 billion based on other mid-sized firms in the same industry.

TMHNA's financial gains have been calculated based on the company being a strategic transition phase i.e. focus on gaining competitive advantage while supporting business growth.

We assume TMHNA would like to bring in SAP Implementation specialists to conduct the migration to SAP S/4 HANA private edition on Microsoft Azure

Reasons to migrate SAP ecosystem to the cloud



May 21, 2020

 Print

Toyota Material Handling North America is the Toyota division that assembles forklifts and warehouse equipment that keep supply chains running. Established in 1990, the production operation is headquartered in Columbus, Indiana. When the lease on its legacy datacenter expired, the company had to shift quickly to the cloud, engaging with Microsoft Azure Cloud Solutions Architect and Microsoft Global Black Belt teams to fill in knowledge gaps for its SAP on Azure deployment. The result? A flawless lift in record time, with typical Toyota elegance.

" We needed a provider that enjoys a close partnership with SAP, understands our needs, and can accelerate our migration and expand our capabilities. Azure answered every need."

—Joshua Sefchek: Manager of Cloud and Enterprise Services
Toyota Material Handling North America

Toyota Material Handling North America (TMHNA) was motivated to embrace the cloud. Frustrated at the expense of on-premises datacenters, it wanted an environment aligned with advances in computing technology. The company sought the resilience, adaptability, and efficiency of the cloud. Most of all, TMHNA wanted to take advantage of SAP cloud capabilities. Ponderous on-premises server management conflicted with the Toyota Way: lean, responsive efficiency always aimed at delivering the best possible customer experience. When its datacenter lease expired abruptly, the state-of-the-art industrial lift company did what it and its parent company are known for: It took the challenge—and excelled.

Learn More

[SAP on Azure](#) (→)

[Toyota Teams transformation story](#) (→)

[Toyota Teams Calling story](#) (→)

Customer

[Toyota Material Handling North America](#)

Products and Services

[Azure](#)

Industry

[Manufacturing](#)

Organization Size

[Large \(1,000 - 9,999 employees\)](#)

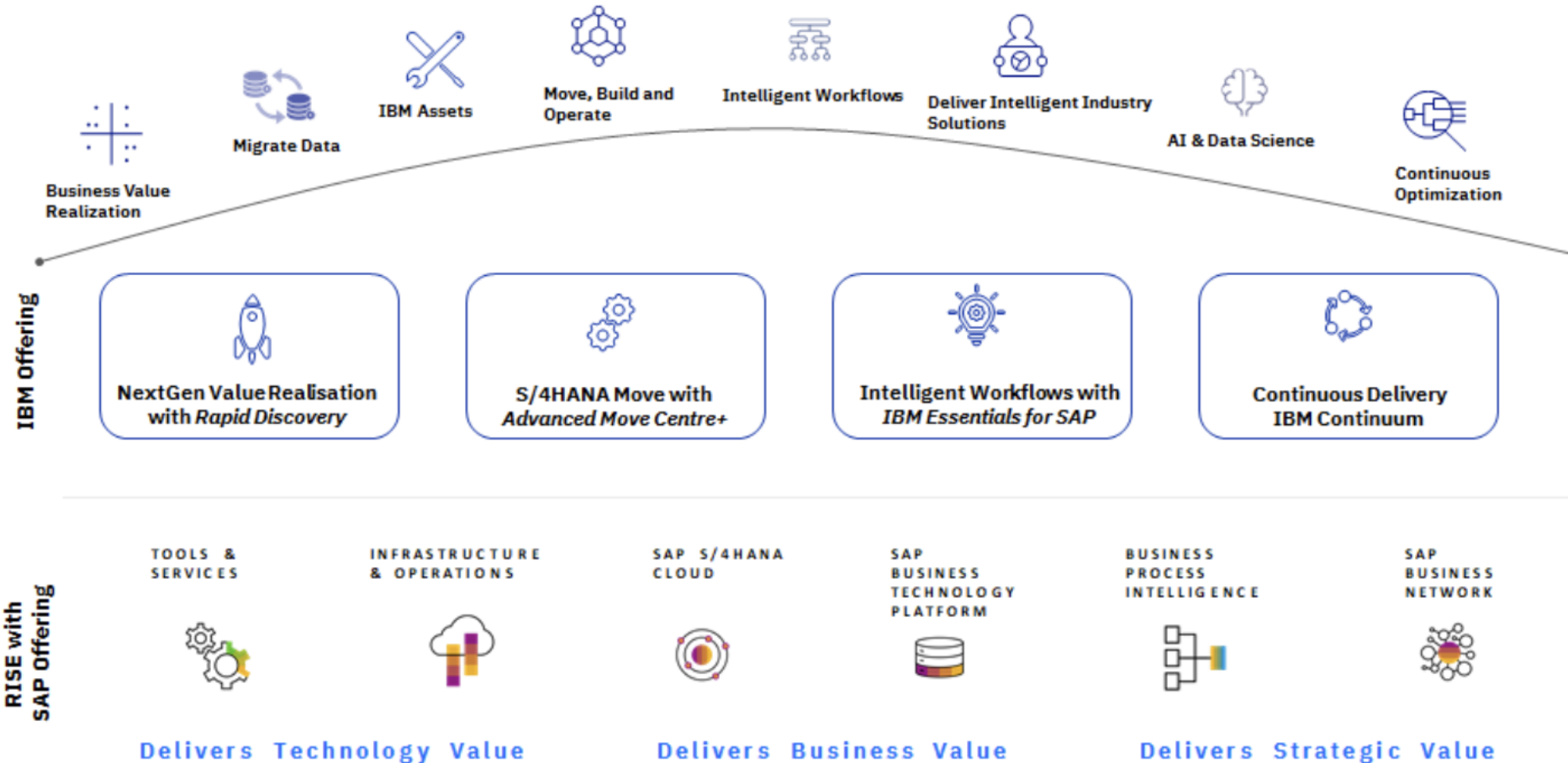
Country

[United States](#)

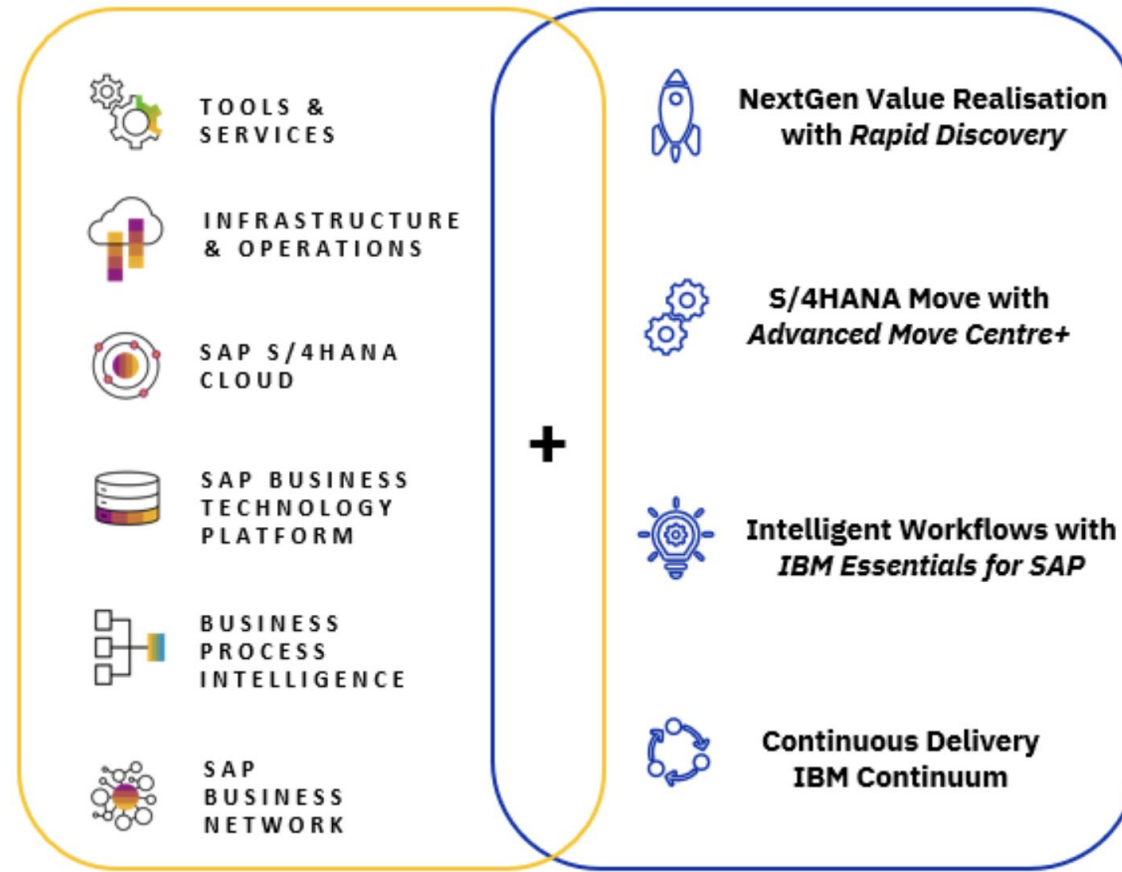
Downloads

 [Toyota Material Handling North America-](#)

IBM Impact Assessment as a precursor to creating a migration roadmap for TMHNA's IT Landscape



How IBM partners with RISE with SAP to provide a value driven service




ONE Contract **ONE Partner**


How IBM partners with RISE with SAP to provide a value driven service

Delivers Business Value


The IBM/SAP Evolution Partnership is built on the Essentials Platform which provides the foundation for the business transformation. This is underpinned by SAP Business Technology Platform, so the RISE with SAP announcement simply re-enforced our long-standing partnership in delivering business transformation for customers.



- Delivering Intelligent by Design to help customers become an intelligent enterprise



- Driving the Data Conversations to deliver the intrinsic value which becomes the foundation of AI and Automation, infused into the process to deliver the business benefits



- Improve business processes by gathering intelligence through process mining.

How IBM partners with RISE with SAP to provide a value driven service

Delivers Strategic Value

IBM augments the existing One Business Network with its own Block chain offering to extend the strategic value to its customers.

To deliver strategic value on S/4HANA, IBM has built responsive, resilient next generation solutions:



Overview of the Smart Brownfield Approach

CONVERSION & DEPLOYMENT OPTIONS

SAP has developed on-premise and cloud editions of SAP S/4HANA and multiple routes to conversion are feasible. Experience gleaned from hundreds of SAP HANA and SAP S/4HANA projects equips us to support clients in choosing the right option for them.

When opting for SAP S/4HANA on-premise edition, the client maintains the software on their own infrastructure. Alternatively, they can host SAP S/4HANA on-premise edition on a public, hybrid or private managed cloud (see figure 2).

SAP S/4HANA on-premise edition can be deployed on a public cloud solution such as Amazon Web Services, Google Cloud Platform or Microsoft Azure. While we can recommend a public cloud solution, each option has distinct

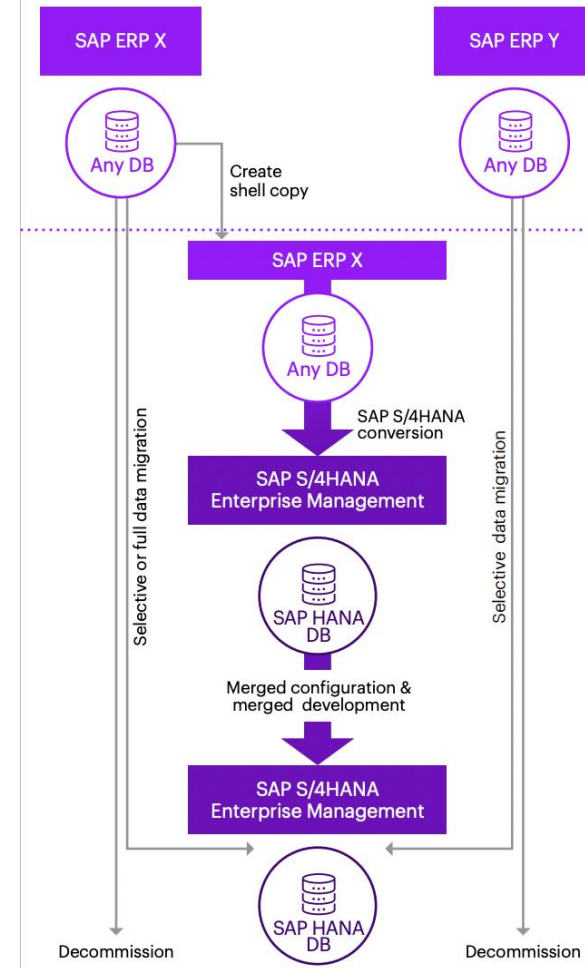
capabilities and capacity. We can help to carefully evaluate each solution against the needs of the organization.

Clients can also opt for SAP S/4HANA Cloud Edition, a software-as-a-service (SaaS) solution that SAP hosts, maintains and updates on a regular basis. This solution is often used in a two-tier architecture with cloud edition instances for subsidiaries that are integrated with a central SAP S/4HANA system at a higher organizational level.

Accenture can help organizations select the best route to deploy SAP S/4HANA to the cloud based on their unique circumstances and ambitions. Once the most appropriate route is decided, Accenture can accompany them on their journey to cloud and provide managed services on the cloud solution.

SMART BROWNFIELD (HYBRID) APPROACH

Create a shell copy of the leading system with existing implemented processes and perform SAP SLO tool-based migration of a selected or the full data scope



Source: Accenture

https://www.accenture.com/_acnmedia/pdf-63/accenture-172199u-sap-s4hana-conversion-brochure-us-web,-d-,pdf.pdf



Adopting Smart Brownfield migration will enable TMHNA to leverage existing investment while making selective enhancements

Description

Brownfield Approach:

- A brownfield approach focuses on a full-scale system conversion, which occurs without re-implementation and does not disrupt the existing business processes
- Brownfield approach also contains a re-evaluation of the customization necessary for TMHNA

Key Benefits

- Allows for the project to be broken into several distinct phases
 - Can enable companies to better understand their scope and optimize their project as they see fit
- Less expensive because TMHNA already has many applications and systems working well for them
- Automatic transfer of master data when you convert over to S4 HANA using a brownfield approach

Greenfield

- New Implementation
- Enables complete re-engineering and process simplification
- Lowers time-to-value and TCO
- Facilitates faster adoption of innovation

Smart Brownfield

- Suitable for very large organizations with complex structures
- Involves creation of an empty shell of target system
- Selective data migration from ECC to S/4 HANA
- Combines innovation, business transformation and previous investments

Business Value

Allows for the project to be broken into several distinct phases

- Enables companies to better understand their scope and optimize their project as they see fit

Less expensive because TMHNA already has many applications and systems working well for them

Automatic transfer of master data when you convert over to S4 HANA using a brownfield approach

Statistics on SAP S/4 Hana Responsiveness

Responsiveness

Choice, flexibility, and control: Purpose-built for today's business environment.

SAP S/4HANA Cloud, private edition

20%



reduction in TCO including one-time migration costs.

Lower Total Cost of Ownership

87%



reduced infrastructure and staffing for lower cost and improved scaling.

Reduced Infrastructure and Staffing

2+ months



potential acceleration in deployment speed as operational lead times fall.

Faster Deployment

Advantages of leveraging the S/4HANA Cloud, private edition packaged in RISE with SAP

SAP S/4HANA® Cloud, private edition

A key component of **RISE with SAP**

Traditional Flexibility and Scope + Cloud Value



Cloud Value

SAP S/4HANA Cloud, private edition

- Shift from CapEx to OpEx
- Reduce existing maintenance cost
- Utility level resilience
- Elastic investment that scales with your business

Innovation

- Full SAP S/4HANA Cloud scope, including LoB and industry processes, supporting 25 industries
- Code enhancements and **code modifications** supported
- **Expert configuration** via full IMG access
- **Operating expense** via subscription-based commercial model
- **Hyperscaler** infrastructure to scale up or down quickly

Simplicity

- **One SLA, one hand to shake**
- **Rapid conversion** of your existing ERP/ECC environments to a modern, cloud-based architecture
- **Prior ECC and partner solution investments safeguarded**
- **CapEx to OpEx** with a subscription-based commercial model
- **Transformation at your pace**
- **Partner add-ons** to enhance competitive differentiation

Advantages of leveraging the S/4HANA Cloud, private edition packaged in RISE with SAP

SAP S/4HANA Cloud: **The right fit for every organization**

ONE Data Model • **ONE** Semantic • **ONE** User Experience

As a Service

As a Product



SAP S/4HANA Cloud

Complete, modern, SaaS ERP

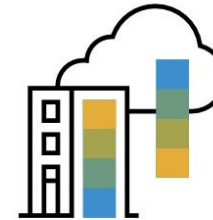
Our strategic choice for companies ready to embrace the future of ERP with a **new implementation and pre-defined processes**



SAP S/4HANA Cloud, private edition

Cloud value, traditional flexibility and full scope

Designed to provide innovation and cloud value while allowing customers to retain their investments by **converting their existing system(s)**

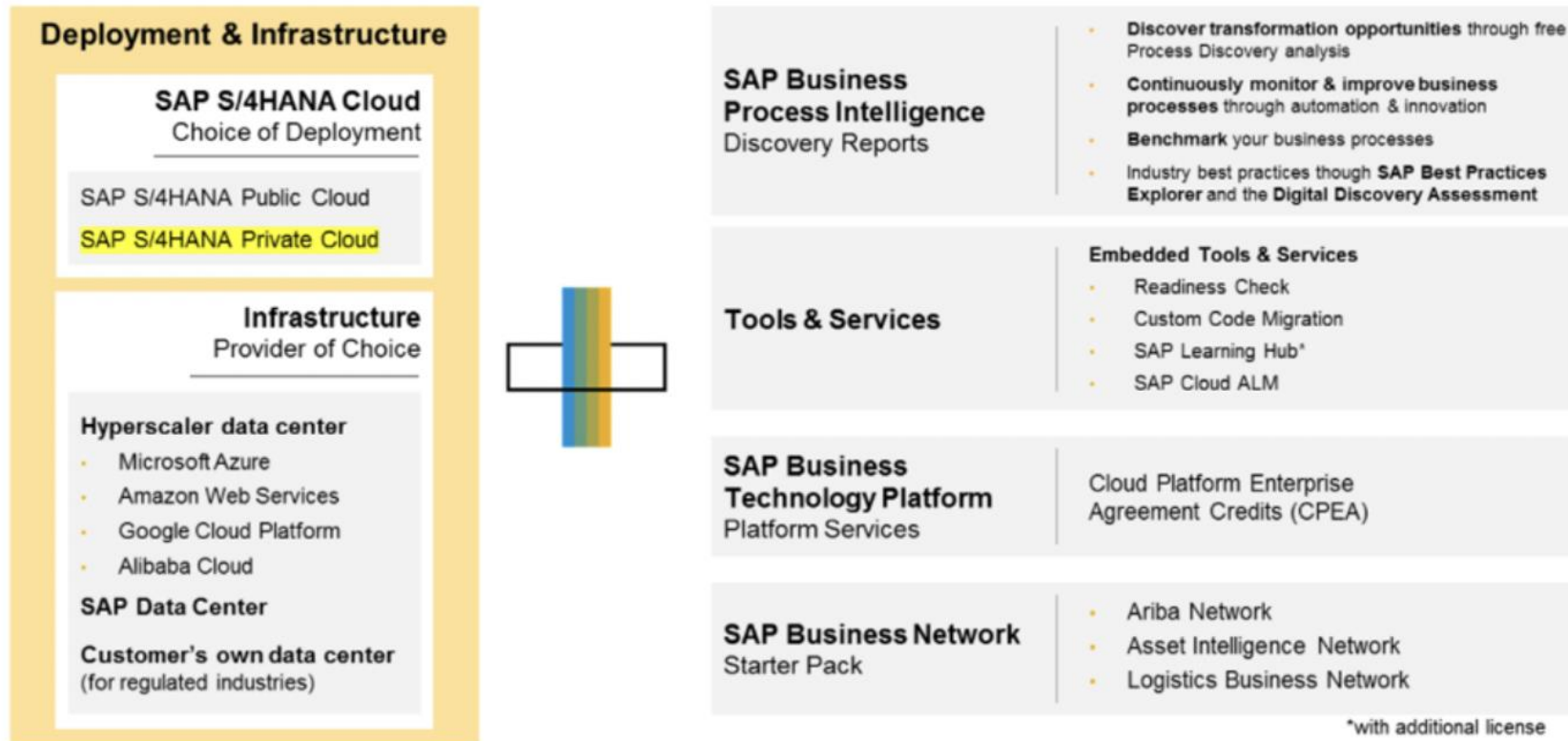


SAP S/4HANA

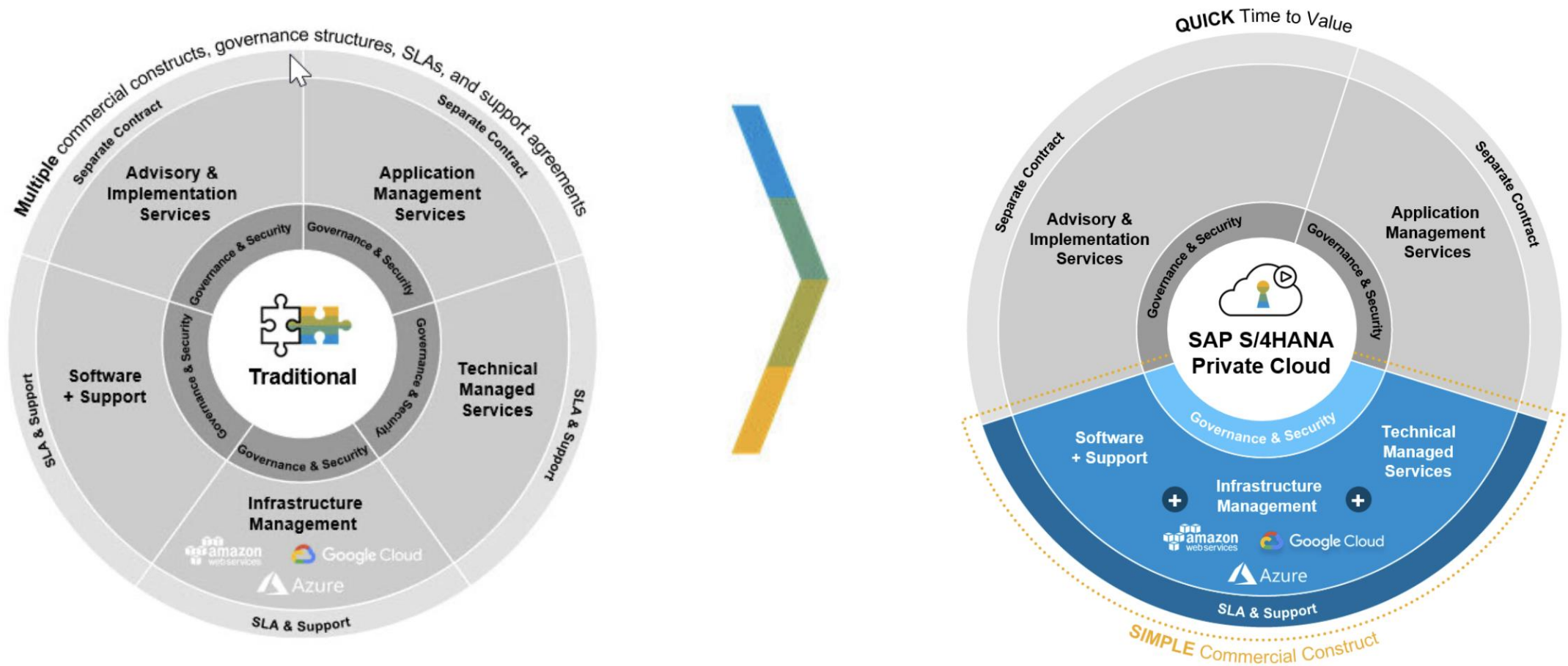
Total control and individualization

Innovative, intelligent ERP for customers that require **maximum control of their ERP system**, usually in their own data centers or with existing IaaS partnerships

Advantages of leveraging the S/4HANA Cloud, private edition packaged in RISE with SAP

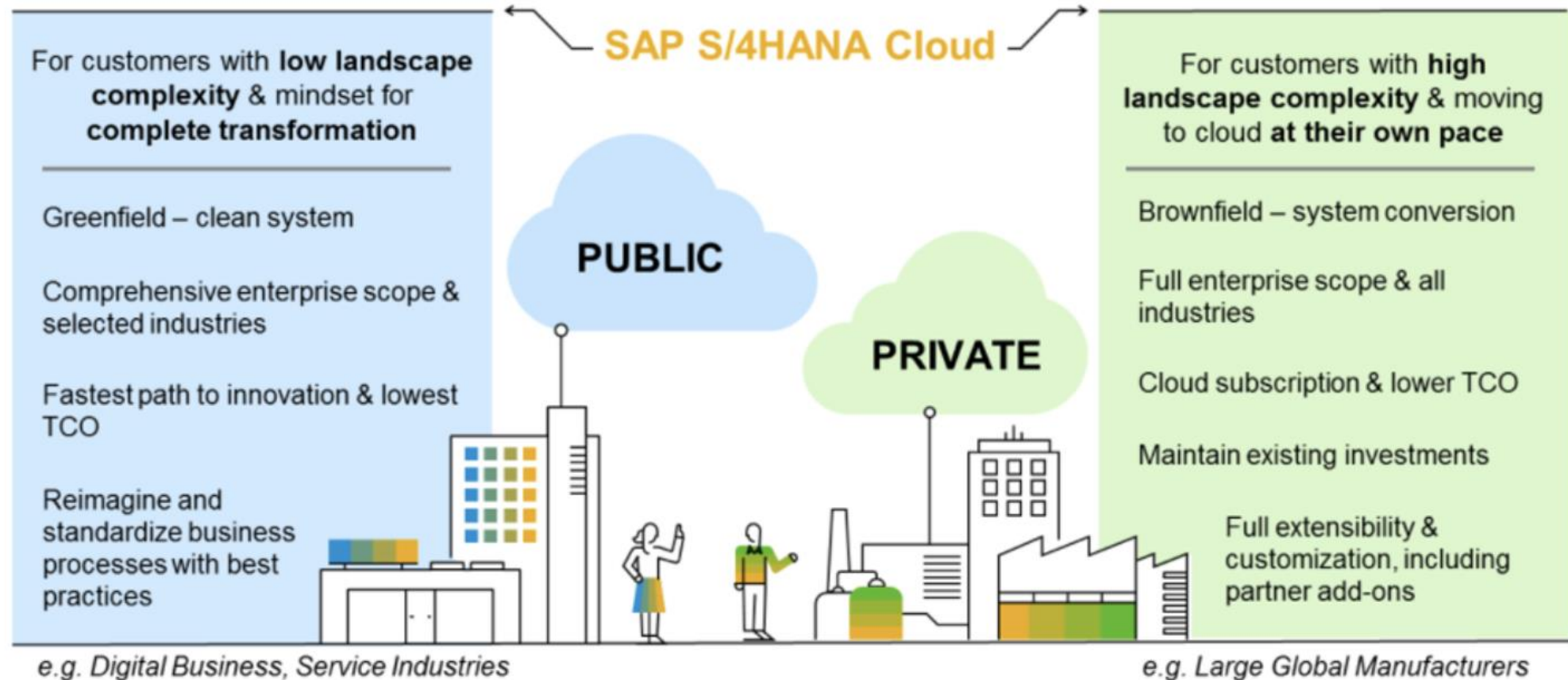


Advantages of leveraging the S/4HANA Cloud, private edition packaged in RISE with SAP

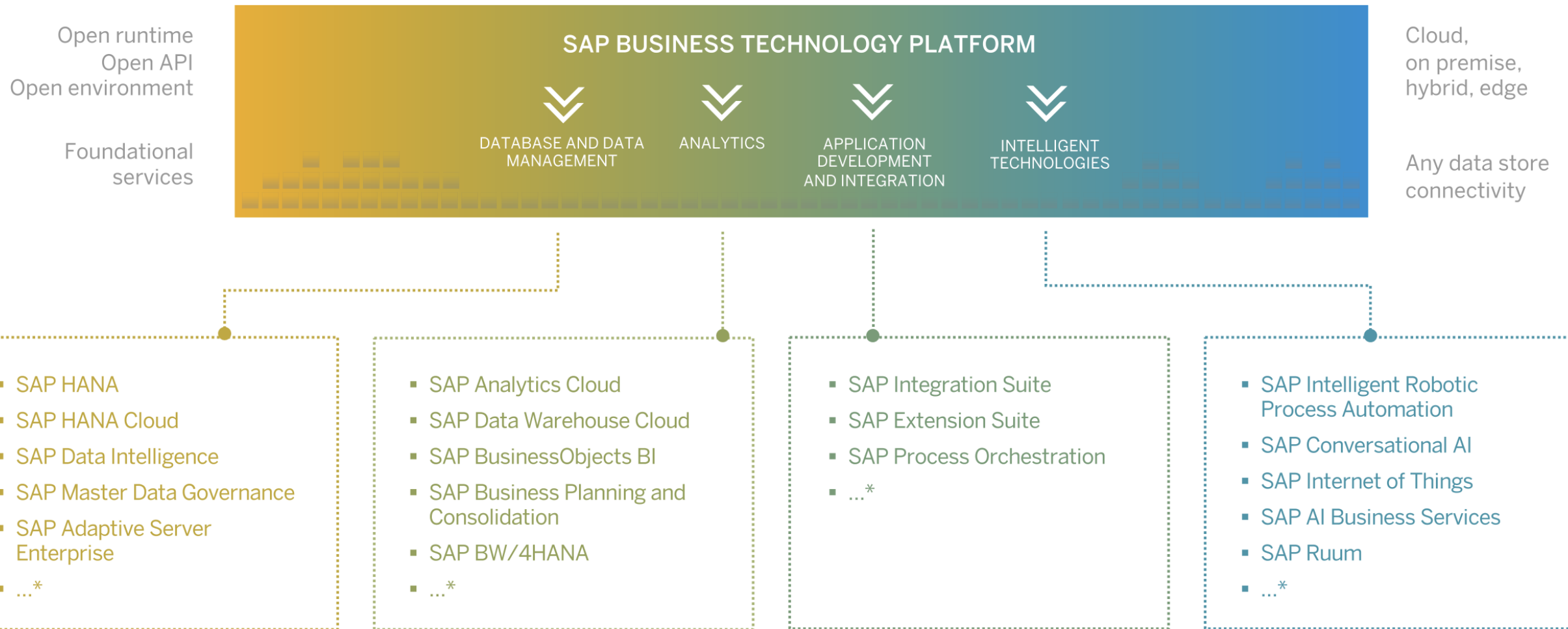


Advantages of leveraging the S/4HANA Cloud, private edition packaged in RISE with SAP

SAP S/4HANA Cloud supports multi-cloud scenarios based on customer's point of departure

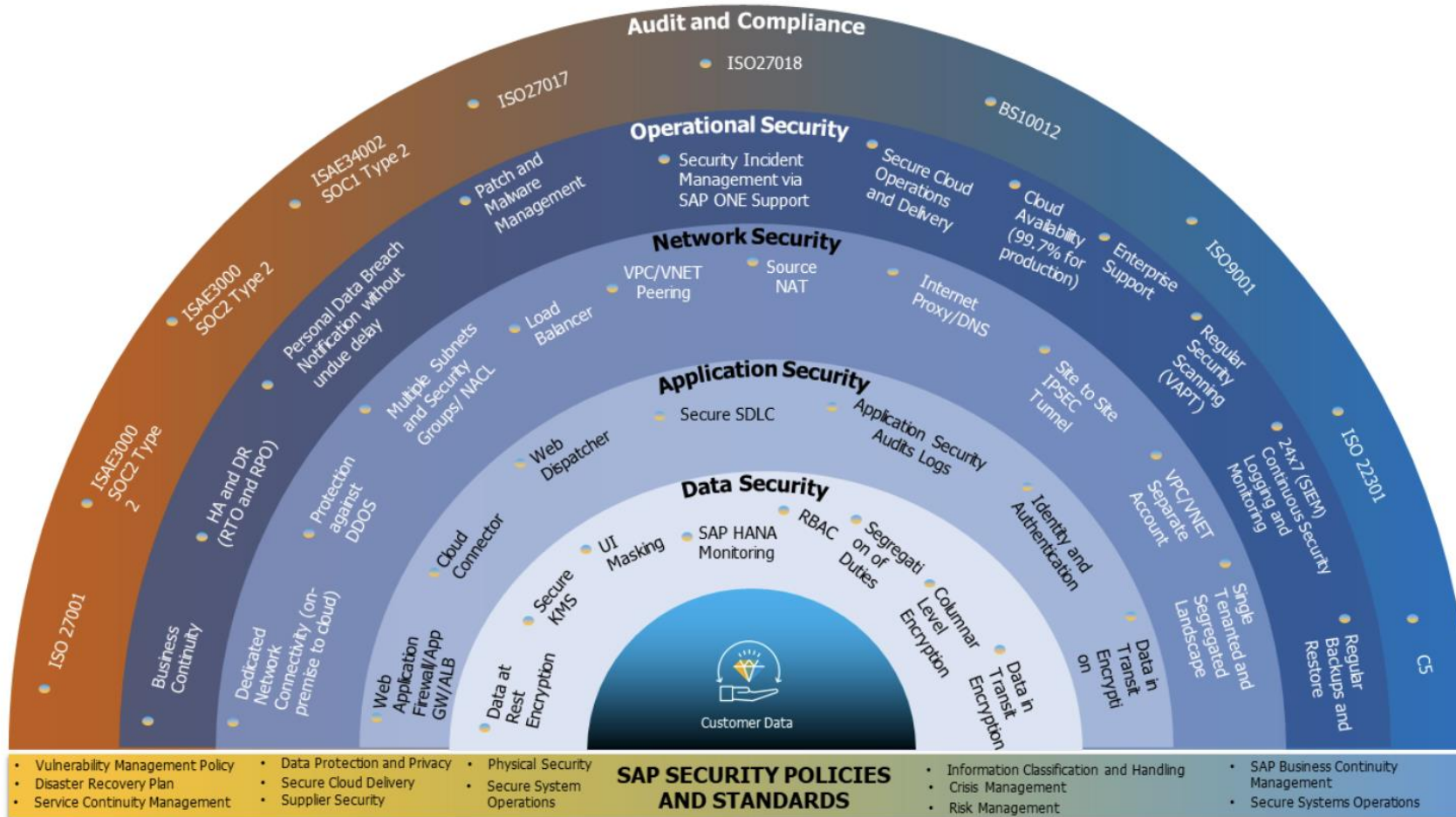


Integration within S/4 HANA across various SAP offerings – *included in RISE with SAP*



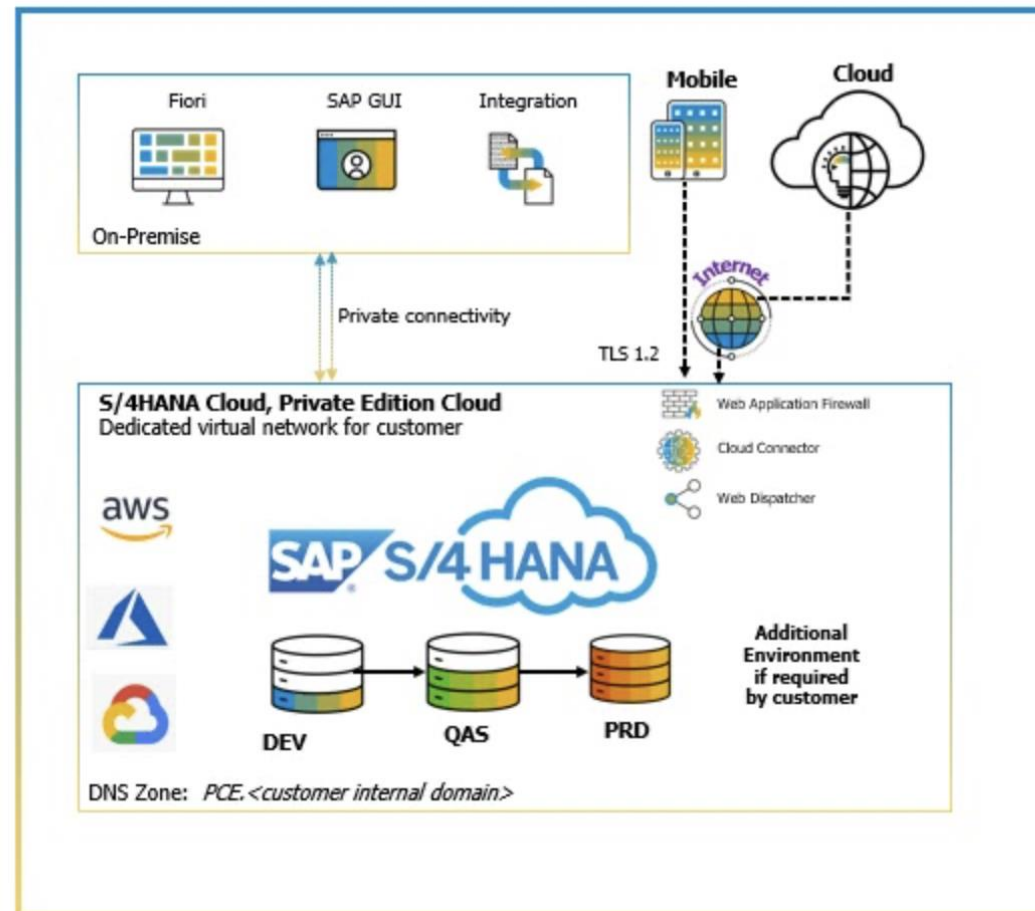
* Representative list; not exhaustive nor inclusive of all offerings

Multi layer security with S/4HANA Cloud, private edition packaged in RISE with SAP



Defense in Depth – SAP S/4HANA Cloud, Private Edition

Landscape of S/4HANA Cloud, private edition packaged in RISE with SAP



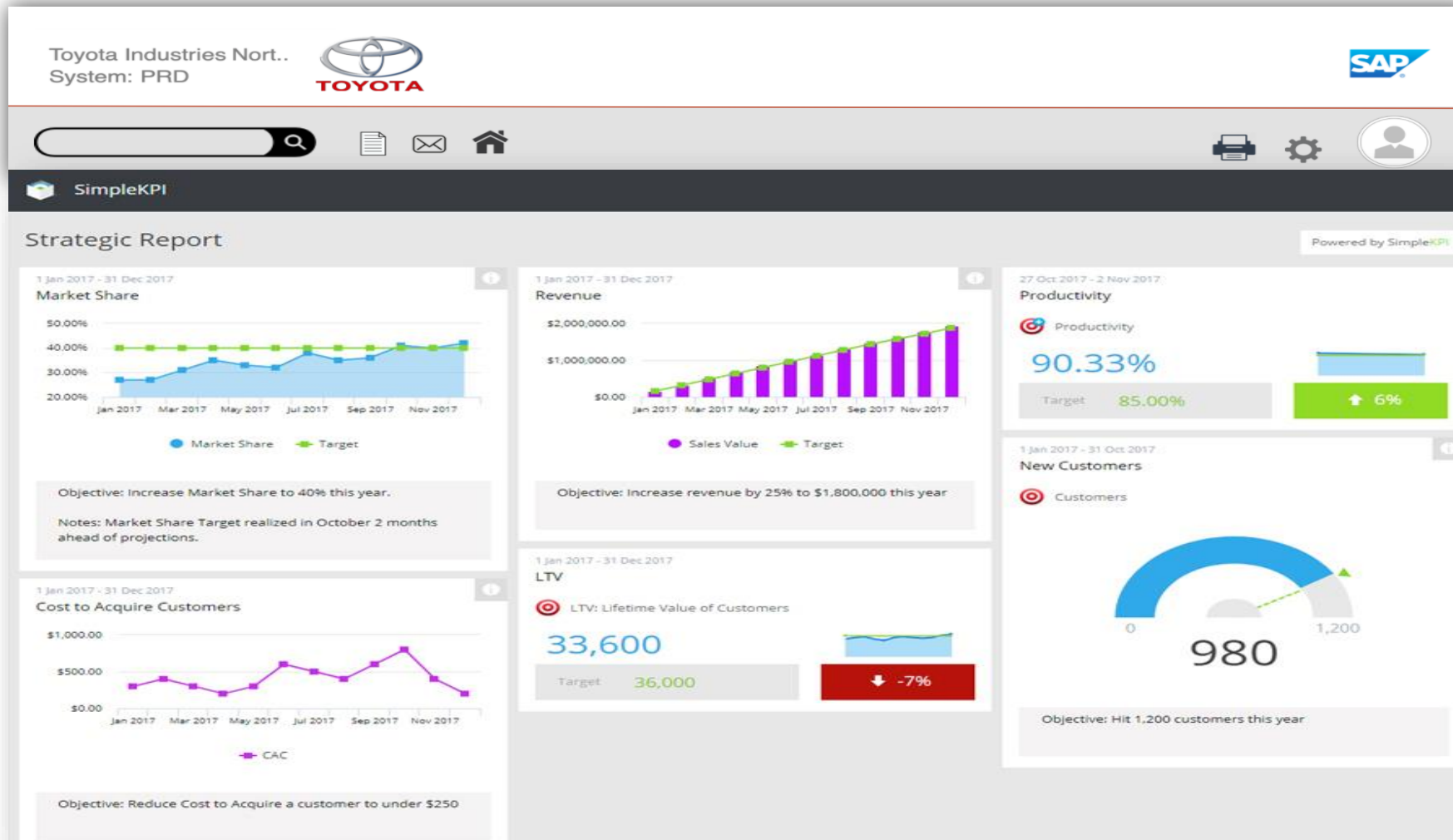
Eliminating brand cannibalism through utilization of the KPI modeler in SAP S4 HANA

The KPI modeler will allow TMHNA to define the KPIs that are crucial to the performance of the organization and that will identify instances of brand cannibalism. TMHNA will visualize these KPIs by choosing from a range of options.

Reports	Variants	Evaluations	Visualizations
<ul style="list-style-type: none">• Displays continuous data• Illustrates the performance of multiple measures against a set of dimensions	<ul style="list-style-type: none">• Set of filter settings and input parameters that you define to gain a particular perspective on a KPI or a report• Each contains a query that determines which filter variables are available for selection when creating the variant	<ul style="list-style-type: none">• Combines variants, thresholds, parameters, trends, and authorizations that are applied to a KPI or a report• Evaluation defines what information about the KPI, or report is visible to the SAP Smart Business user at runtime	<ul style="list-style-type: none">• Representations of the evaluation of the KPI or the report visible to the SAP Smart Business user at runtime• Custom to TMHNA

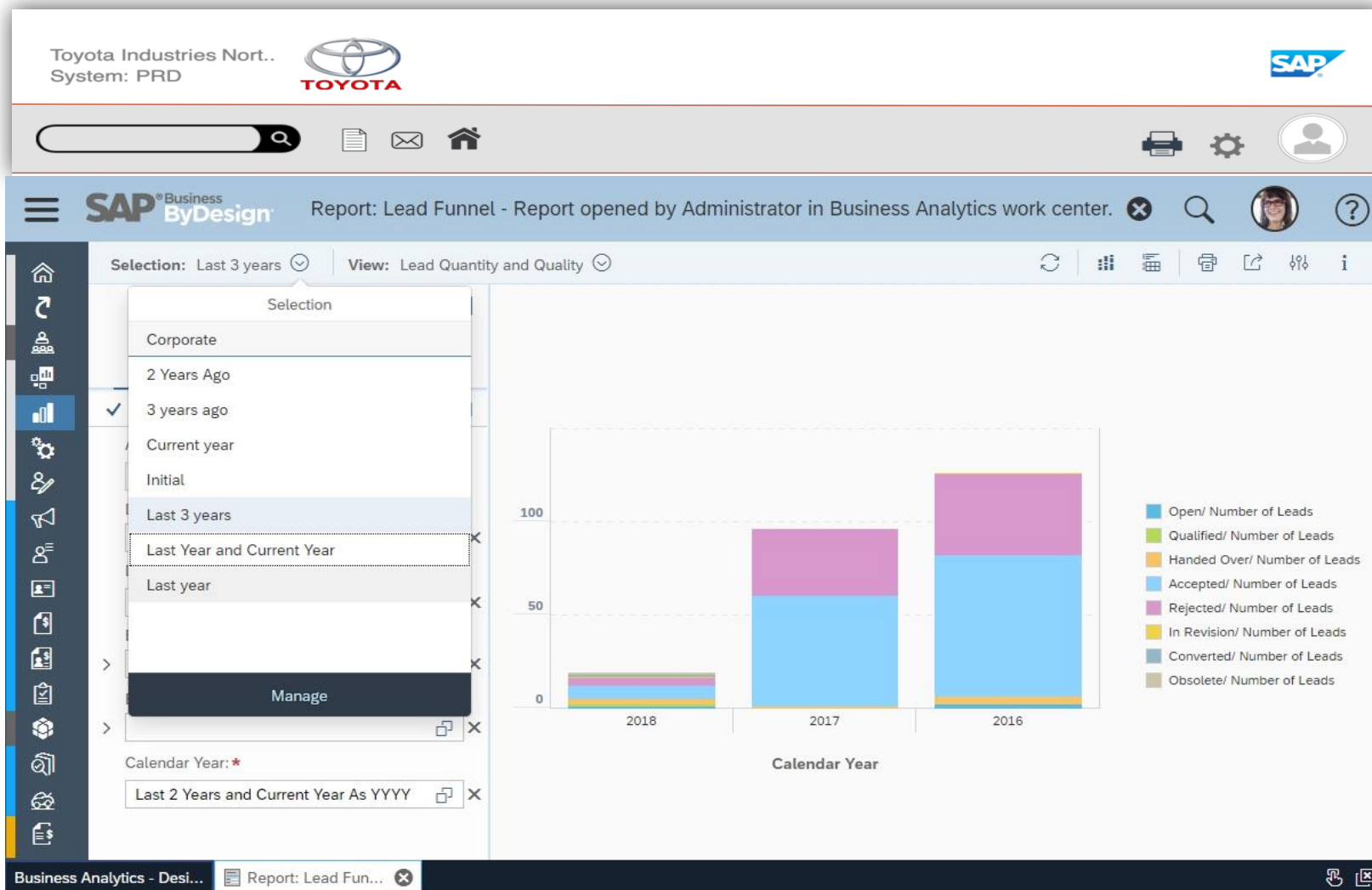
The KPI Modeler will identify instances and regions where Raymond products should perform better than TMH products or vice versa and visualize that to sales members between both the brands, so they may divide and conquer new dealers or current dealers once contracts have ended

KPI Reports utilized to compare sales between Raymond and TMH and to reach decisions on merging sales



KPI Reports provide business value for TMHNA through drawing from real time in the brand's separate data warehouses and creating reports gauged toward the companies interests through artificial intelligence.

KPI Variants will decide whether TMH or Raymond acquires dealers for common product lines

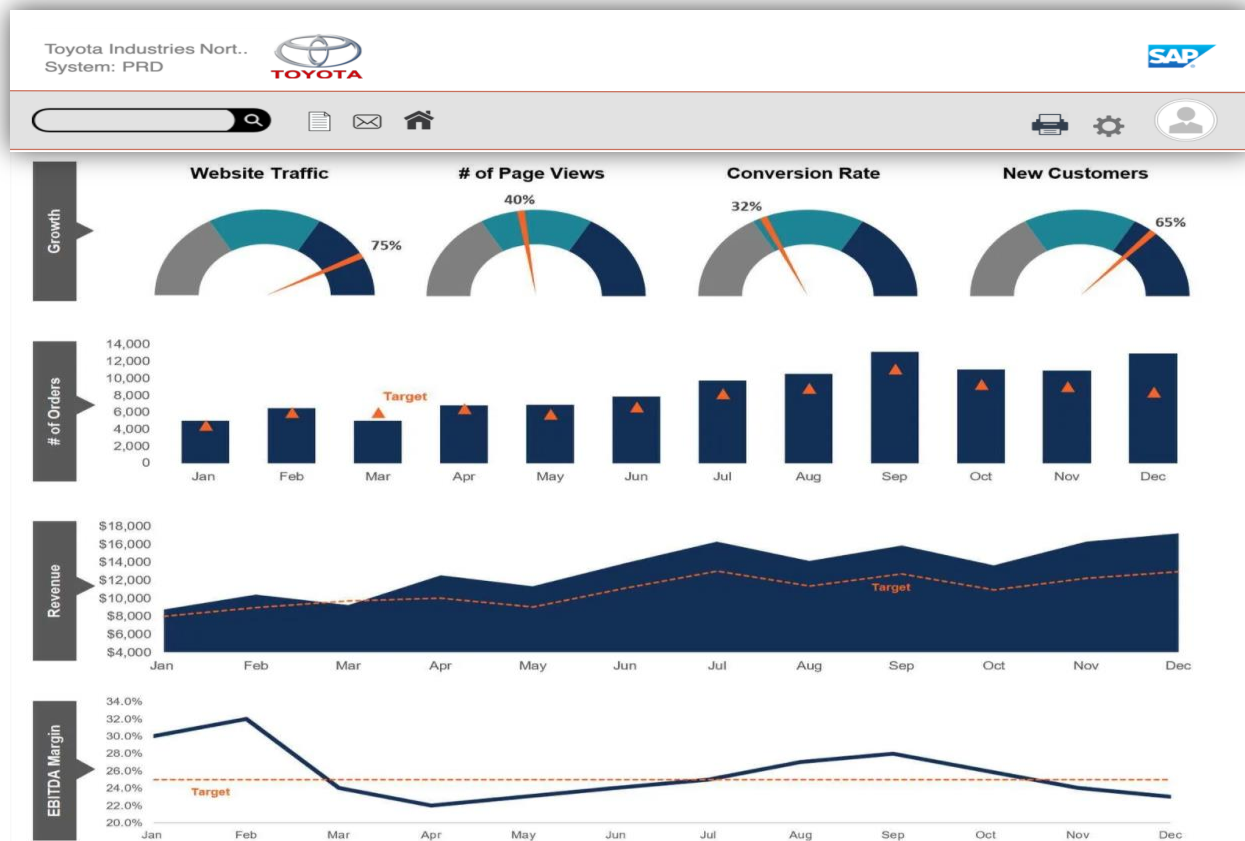


The Leader Quantity and Quality KPI will adapt the report view and selection for business needs. Information and data will be segmented between the companies and utilized to understand sales for common product lines.

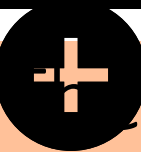


KPIs will be utilized to measure external industry trends in addition to cannibalization between the brands

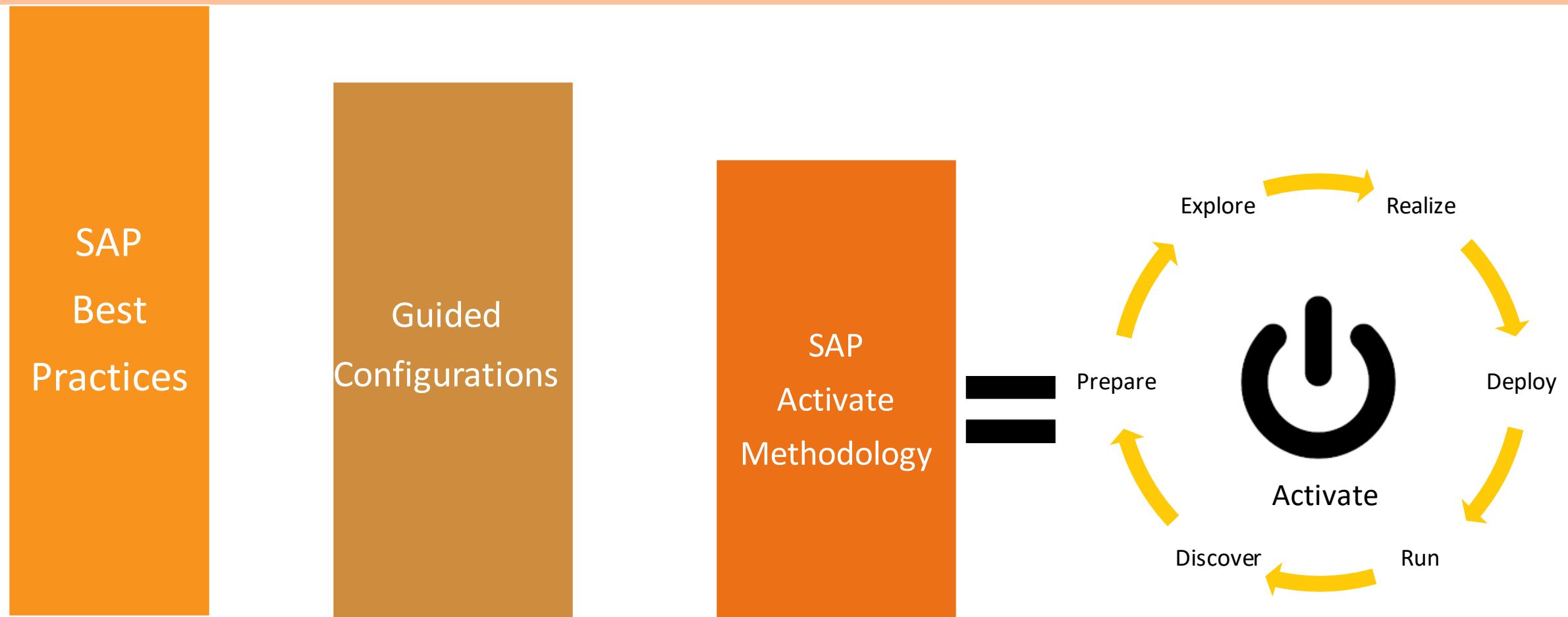
The KPI Modeler will compare the data from the brands to other time periods, user groups, or competitors. This will help TMHNA to spot trends. Trends will allow the company to better understand what's happening and to take the right actions



KPIs can measure the success of the subsidiaries compared to industry standards through data imported from databases or the internet. The five most commonly used KPIs are revenue growth, revenue per client, profit margin, client retention rate, and customer satisfaction.



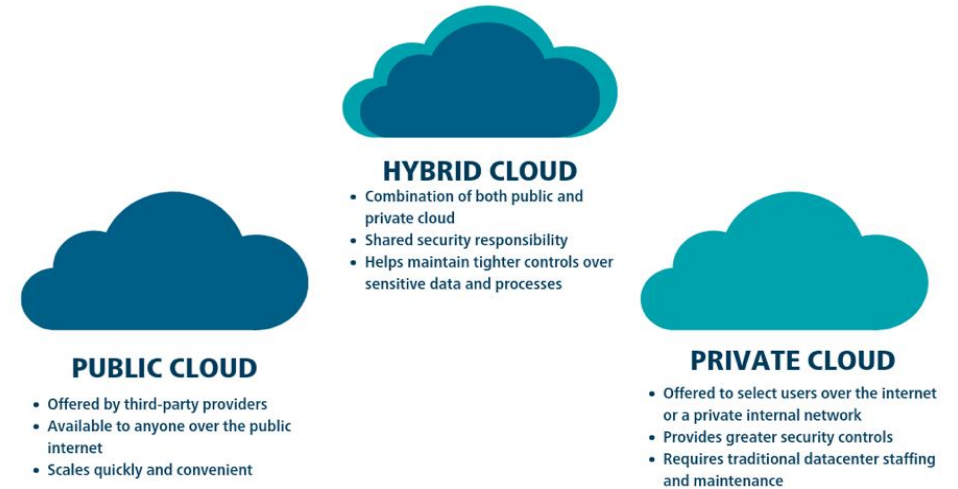
SAP Activate framework is a widely accepted approach to S/4 HANA migration



These three pillars combine to make up the SAP Activate Framework, which is what we recommend TMHNA utilize going forward

SAP Deployment on a hyperscaler private cloud using a SaaS model will allow for a lot of TMHNA

- TMHNA existing IT and Cloud landscape is mainly customized
- Looking to migrate to a standardized version of S4 HANA which will boost their efficiency across the board
- Private Cloud leaves TMHNA the ability to customize their systems as they see fit / necessary



Key Benefits of using a private cloud vs other forms

Full control over hardware and software choices

Freedom to customize services and software in any way

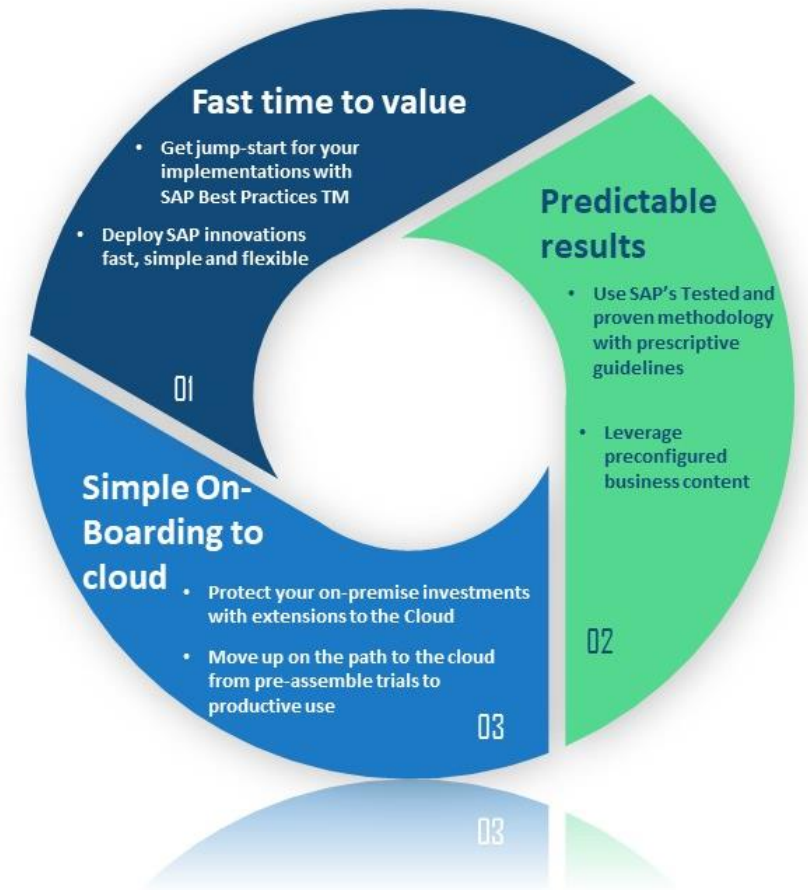
Greater visibility into security and access control

Fully enforced compliance with regulatory standards

SAP Best Practices Explorer allows for TMHNA to better understand the best actions to take for migration

SAP Best Practices Explorer

- This is the first pillar of the SAP Activate Framework and offers many benefits to customers that pursue this approach
- Benefits include:
 - Over 45 years of widely accepted industry-specific knowledge and experience to help optimize business processes for SAP and S/HANA
 - Excellent documentation and best practices to ensure that the migration process is easier than walking in blindly
 - Offers business process flows, roles and responsibilities that cohesively form a user manual for easier and more efficient customer use



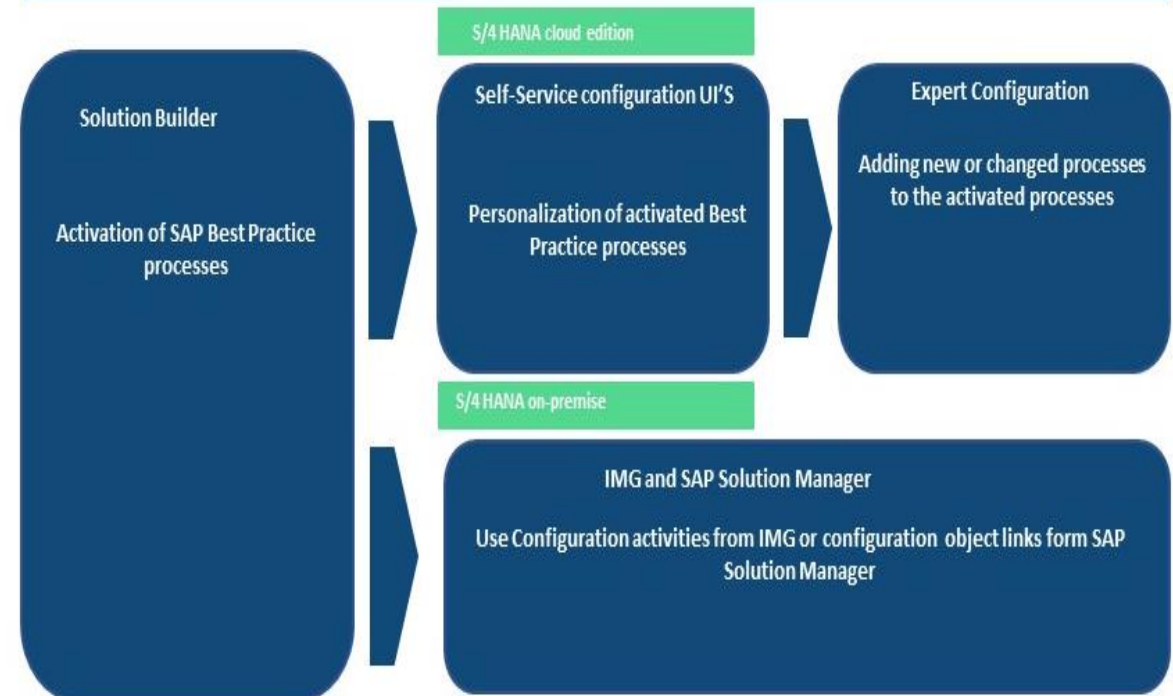
SAP Guided Configurations allow TMHNA and consultants to customize the incoming SAP system

SAP Guided Configuration

- This is the second pillar of the SAP Activate Framework and will offer many customization options to TMHNA
- Benefits include:
 - Guided configuration portals allow for easier customization of processes for both external consultants and TMHNA
 - Offers a self-service configuration option for any customer-specific requirements that could come up down the line
 - Is consistently updated up to 2x a year and has many content lifecycle management practices within it.

KEY MESSAGE

- Guided Configuration provides an assisted way to implement SAP Best Practices
- For S/4 HANA cloud edition Guided Configuration facilitates the lifecycle management of the pre-configured business process content.



SAP Activate Methodology will allow THMNA to reap the rewards of their new S4/HANA implementation

SAP Guided Configuration

- This is the third and final pillar of the SAP Activate Framework and will ensure that the S4/HANA implementation is smooth from end to end.

Benefits of using Activate

Easily maps out the 6 main phases of the implementation for general understanding

Requires 10 or less key deliverables per phase, granting easier access to key guides and project accelerators

Leverages the other two pillars to form almost an all-encompassing, guiding pillar

KEY MESSAGE

- SAPACTIVATE methodology is designed to succeed all variants of ASAP 8 methodology and SAP Launch
- Differences for different deployment options are reflected in specific versions of the methodology for each deployment type

	Old	Current	Main improvements	Supported implementations
New Implementation	ASAP 8	- SAPACTIVATE methodology for on-premise edition	<ul style="list-style-type: none"> - Based on use of SAP Best Practices - Agile project delivery - Reduced project lifecycle – only 4 phases - Leverage Guided Configuration 	<ul style="list-style-type: none"> - SAP S/4 HANA on-premise edition - SAP Business Suite (ERP, CRM, SRM,...)
	SAP Launch	- SAPACTIVATE methodology for cloud editions		<ul style="list-style-type: none"> - SAP S/4 HANA cloud editions – enterprise, marketing, project services - SFSF, C4C and Ariba solutions
System Conversion	-	- SAPACTIVATE methodology for System Conversion	<ul style="list-style-type: none"> - Solution fit/gap workshops replace detailed Blueprint - 10 or less key deliverables per phase, thus easier access to key guides and accelerators 	<ul style="list-style-type: none"> - SAP S/4 HANA on-premise edition
Landscape Transf.	-	- SAPACTIVATE methodology for Landscape Transformation		<ul style="list-style-type: none"> - SAP S/4 HANA on-premise edition - SAP S/4 HANA cloud editions – enterprise, marketing, project services

SAP ECC to SAP S/4 Conversion Approach



Details of the SAP Activate Framework and its Implementation

SAP Activate Methodology for RISE with SAP S/4HANA Cloud, private edition



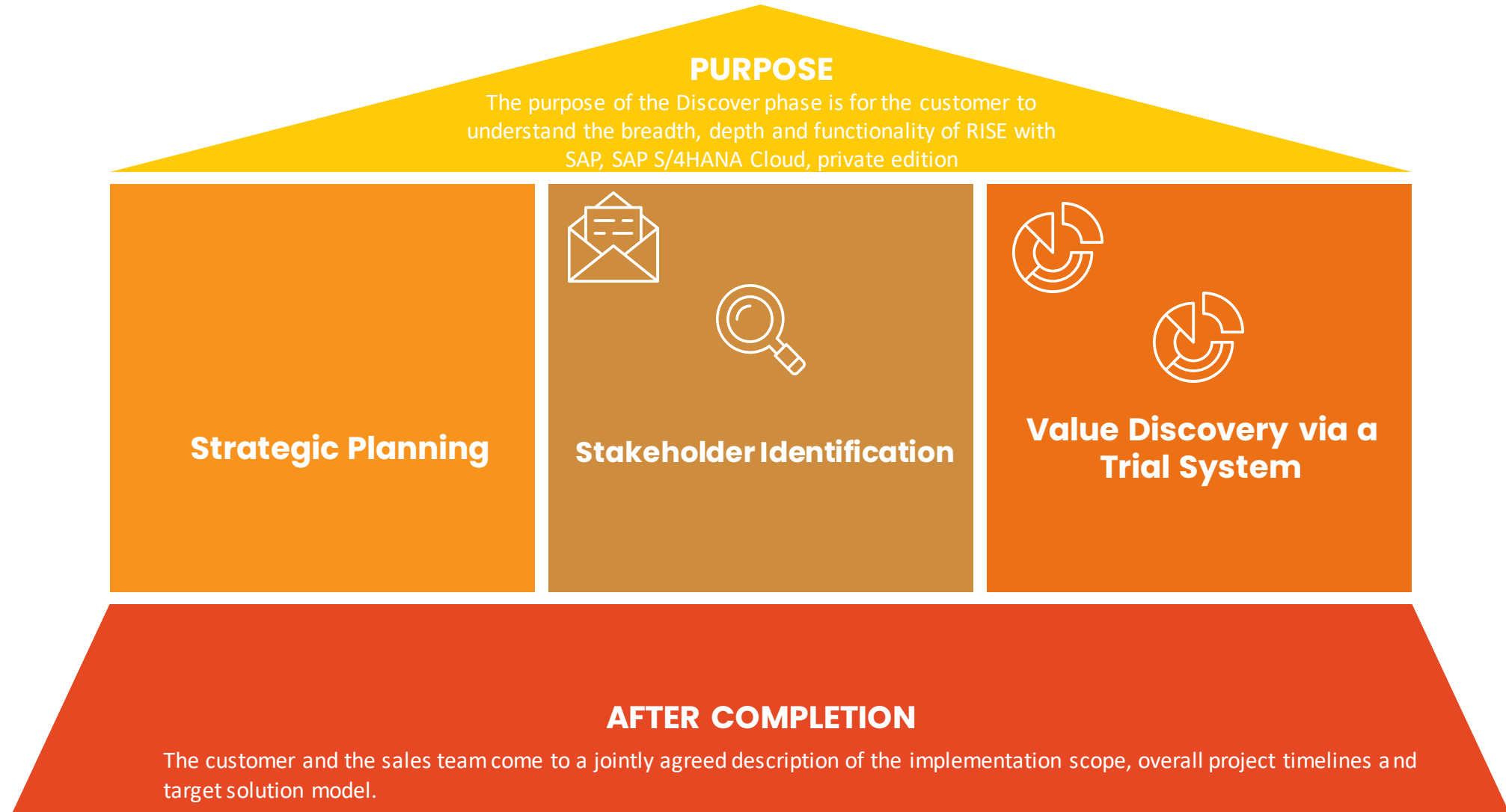
Overview ▼ Content Accelerators



	Discover	Prepare	Explore	Realize	Deploy	Run
Project Mgmt.		Getting Started & On-boarding Project Initiation & Governance Project Standards & Kick-off	Release & Sprint Planning	Execution / Monitoring of Project Sprint Initiation Sprint Closing		
Customer Team Enablement		Customer Team Self-Enablement	Customer Execution of Standard Scenarios			
Technical Architecture & Infrastructure	Cloud Trial	SAP Cloud ALM Onboarding Initial System Access Implementation Tools Access	Sizing Validation	SAP Business Network Release Request Quality System Access and Setup Production System Initial Access	System Go-Live	Ongoing Operations
Application Design and Configuration	Strategic Planning Discovery Assessment Application Value & Scoping	Transition Planning & Preparation Business Driven Configuration Assessment Fit-to-Standard System and Workshop Preparation User Experience Strategy & Workshop	Fit-to-Standard Business Process Performance Design Workshops and Documentation User Interface Design User Access and Security Planning and Design	Solution Configuration Walkthrough & Documentation User Access and Security Implementation Output Management		Improve and Innovate Solution
Extensibility		Prepare Extension	Extension Planning & Design and Custom Code	Solution Extension Development & Deployment		
Integration		Prepare Integration Setup	Integration & AI Planning and Design	Integration Implementation Integration & AI Intelligence Setup		
Testing			Test Planning	Test Preparation Test Execution		
Data Management		Data Migration Approach & Strategy Cutover Approach & Strategy	Data Load Preparation	Data Migration (Development) Data Migration (Test) Cutover Preparation	Production Cutover	
Operations & Support		Operations Planning	Operations Model & Capabilities	Operations Implementation	Operations Readiness	Optimize IT Operations
Solution Adoption	Cloud Mindset Assessment Key Stakeholders	Enablement Strategy & Activities	Learning Needs Analysis	Enablement Content Development & Delivery		User Experience Management
Analytics		Analytics Strategy	Analytics Planning and Design	Analytics Configuration		



The Discover Phase of the SAP Activate Framework





The Prepare Phase of the SAP Activate Framework

PURPOSE

To provide the initial planning and preparation for the project. In this phase, the project is started, plans are finalized, project team is assigned, and work is under way to start the project optimally.



Initiate the project, prepare project plans, schedules, roles assignment

Onboard the Project Team



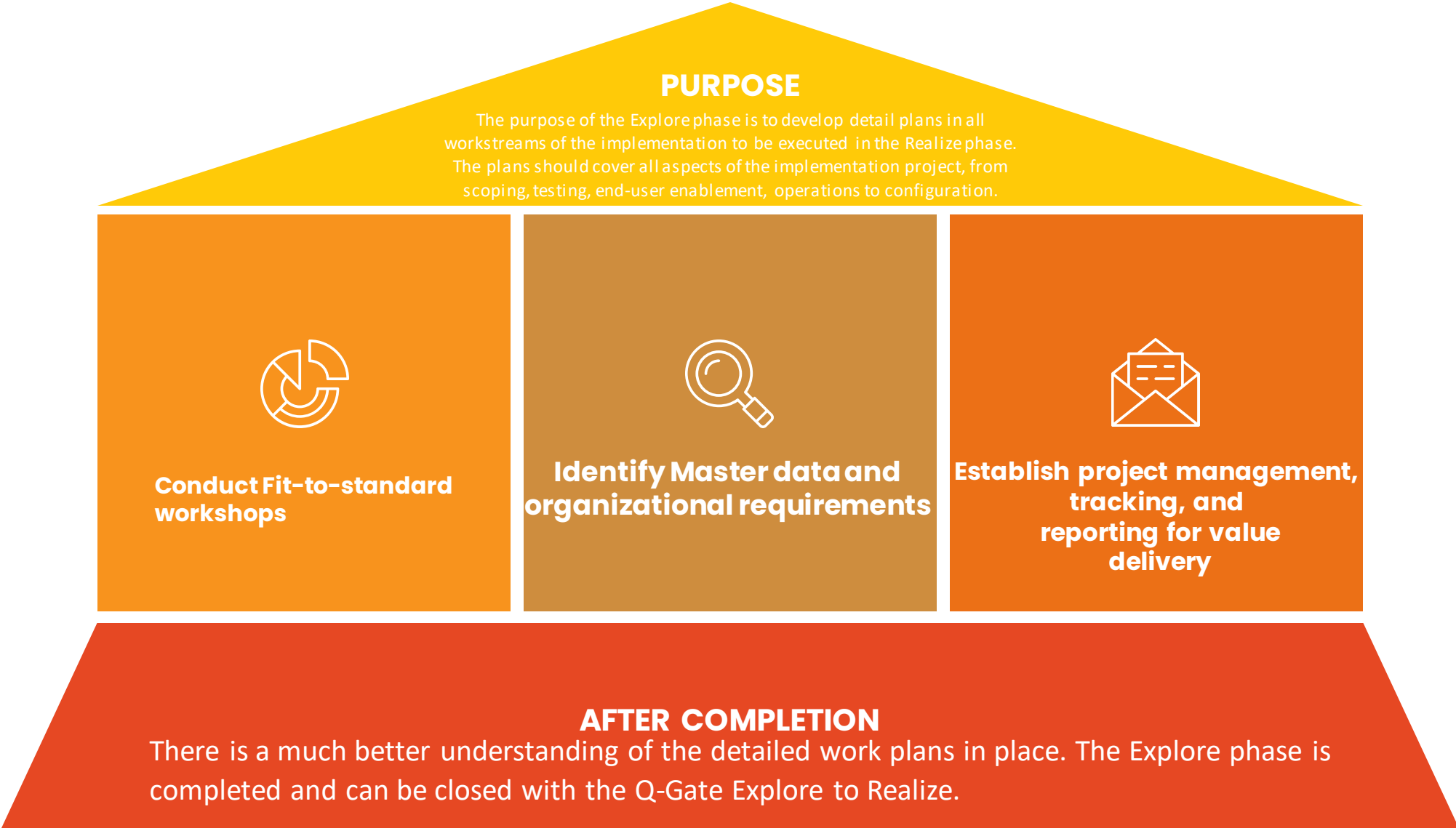
Initiate Integration and Interface List

AFTER COMPLETION

The prepare phase is completed and can be closed with the Q-Gate Prepare to Explore.



The Explore Phase of the SAP Activate Framework



PURPOSE

The purpose of the Explore phase is to develop detail plans in all workstreams of the implementation to be executed in the Realize phase. The plans should cover all aspects of the implementation project, from scoping, testing, end-user enablement, operations to configuration.



Conduct Fit-to-standard workshops



Identify Master data and organizational requirements



Establish project management, tracking, and reporting for value delivery

AFTER COMPLETION

There is a much better understanding of the detailed work plans in place. The Explore phase is completed and can be closed with the Q-Gate Explore to Realize.

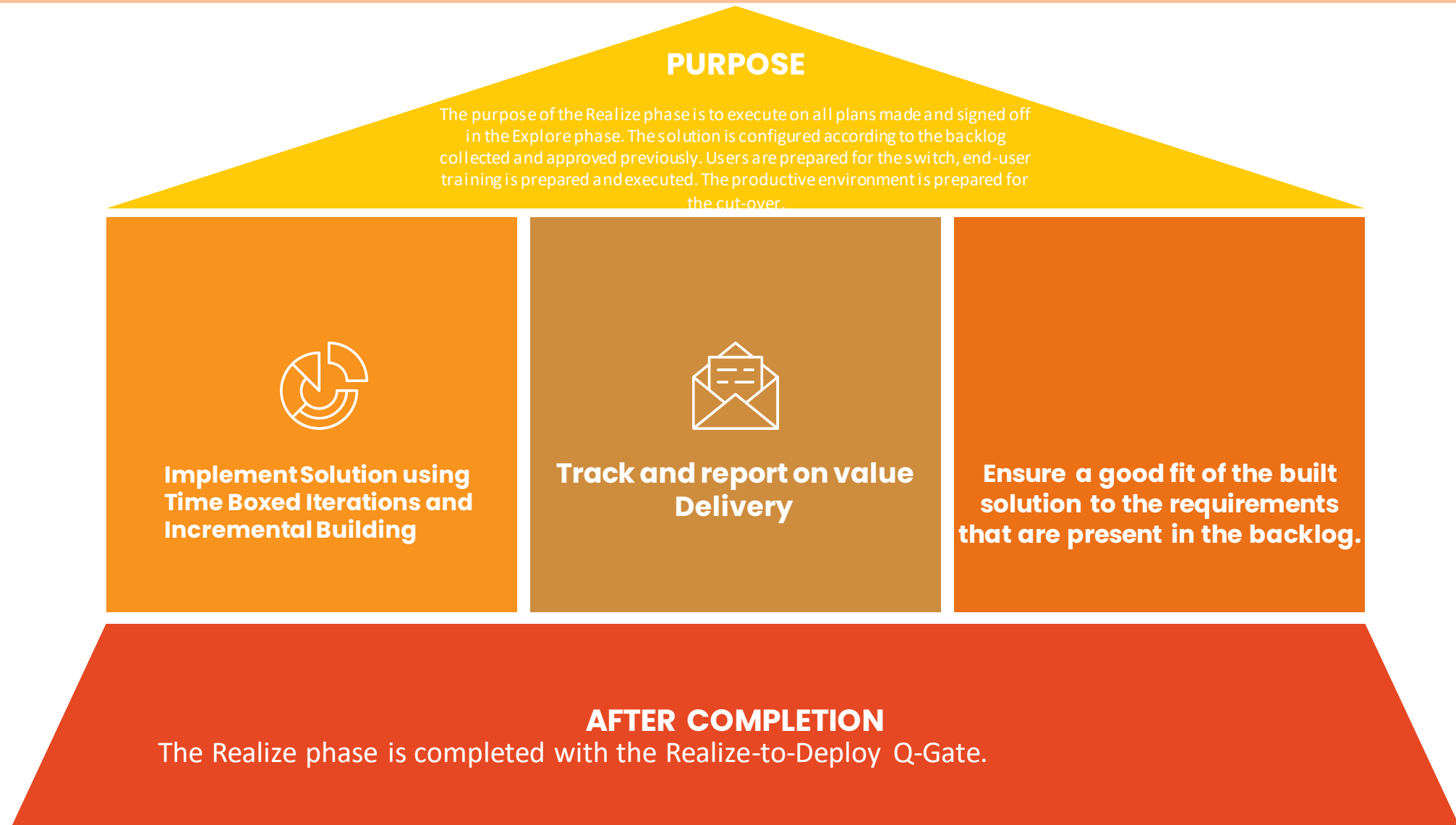
The Realize Phase of the SAP Activate Framework

Conversion Cycles

Cycle 1	Cycle 2	Cycle 3	Cycle 6	Cycle 5	Cycle 6
PRD to SAP S/4HANA "Sandbox"	DEV to SAP S/4HANA DEV	QA to SAP S/4HANA QA	PRD to SAP S/4HANA "Sandbox"	PRD to SAP S/4HANA "Sandbox"	PRD Conversion
Source / Target TT4 Copy → TT4 HW	Source / Target D01 → D01	Source / Target Q01 → Q01	Source / Target TT4 Copy → TT4 HW	Source / Target TT4 Copy → TT4 HW	Source / Target TT4 → TT4
Steps a) Homogeneous system copy of TT4 to TH1 b) Conversion of TH1 to targeted end-state	Steps a) Homogeneous system copy of D01 to DT1 b) Conversion of D01 to targeted end-state	Steps a) Homogeneous system copy of Q01 to QT1 b) Conversion of Q01 to targeted end-state	Steps a) Homogeneous system copy of TT4 to TH1 b) Conversion of TH1 to targeted end-state	Steps a) Homogeneous system copy of TT4 to TH1 b) Conversion of PH1 to targeted end-state	Steps Conversion of P01 to targeted end-state
Purpose <ul style="list-style-type: none"> Test software installation, HANA migration, SAP S/4HANA data model conversion with a production copy Configure, Test SAP S/4HANA Create a conversion cookbook Execute multiple technical iterations to become familiar with the process of converting the production system (if required) 	Purpose <ul style="list-style-type: none"> Build temporary production support development environment (DT1) Establish SAP S/4HANA development environment (D01) Configure, Test SAP S/4HANA Refine cookbook Note <ul style="list-style-type: none"> Conversion steps will differ from production 	Purpose <ul style="list-style-type: none"> Build temporary production support quality assurance environment (QT1) Establish SAP S/4HANA QA environment (Q01) Enhance cookbook Testing environment: <ul style="list-style-type: none"> Integration Functional regression Operational readiness User acceptance 	Purpose <ul style="list-style-type: none"> Mock cutover Optimize/verify E2E business downtime Finalize cookbook Finalize cutover plan Testing environment: <ul style="list-style-type: none"> Infrastructure testing Post-cutover operational performance testing 	Purpose <ul style="list-style-type: none"> Final dress rehearsal Validate E2E business downtime Validate final cookbook Validate cutover plan 	Purpose <ul style="list-style-type: none"> Establish new SAP S/4HANA PRD environment Note <ul style="list-style-type: none"> Execute end-to-end (E2E) business downtime precisely as defined within the cutover plan Execute technical steps precisely as defined in the cookbook

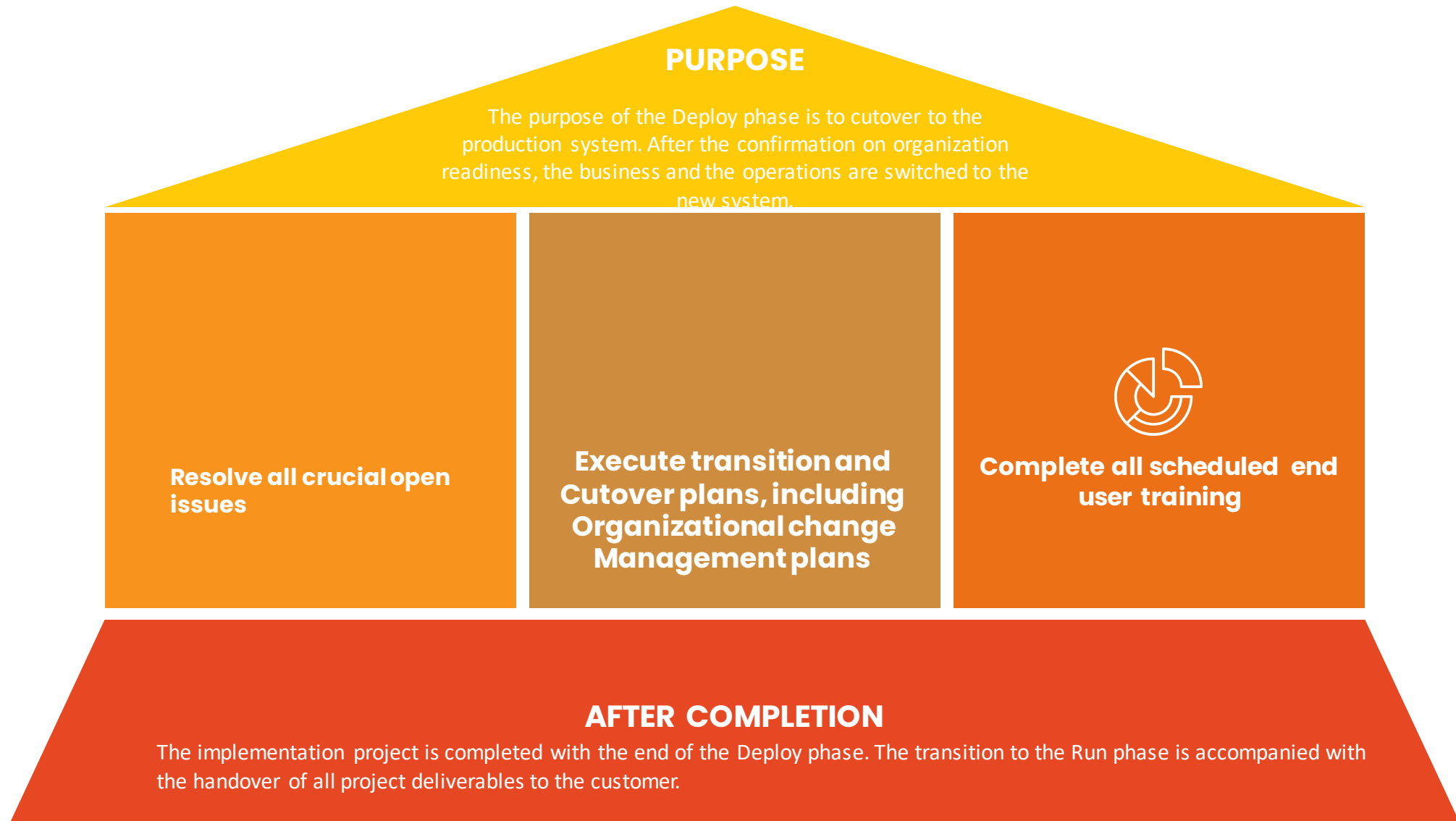


The Realize Phase (2) of the SAP Activate Framework



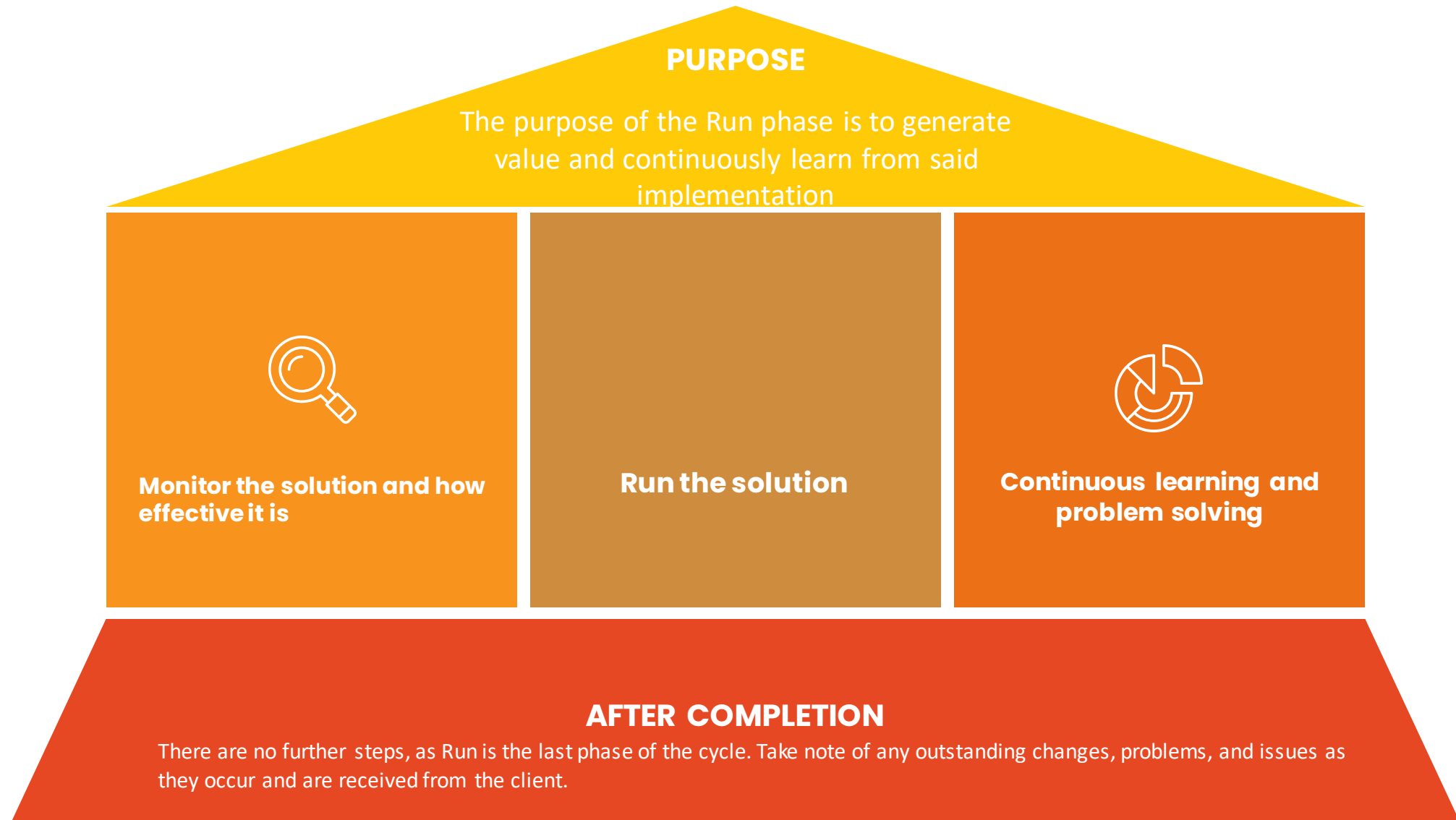


The Deploy Phase of the SAP Activate Framework





The Run Phase of the SAP Activate Framework, the final phase





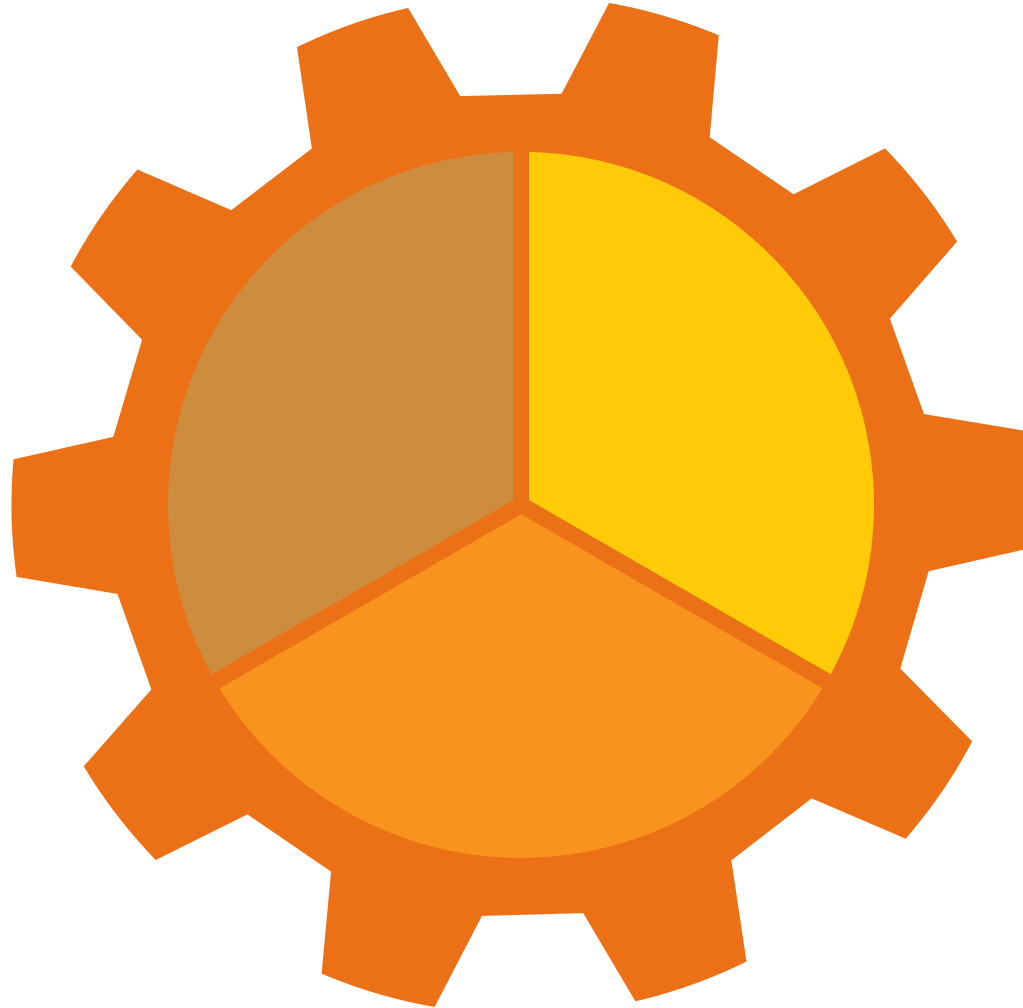
Using the SAP Activate Framework will provide TMHNA with many improvements across the board

SAP Guided Configurations

Offers many customization options will allow for TMHNA to customize their new system as needed, allowing them to decrease their scope and refine their processes on a more granular level than the current state/systems allow.

SAP Best Practices Explorer

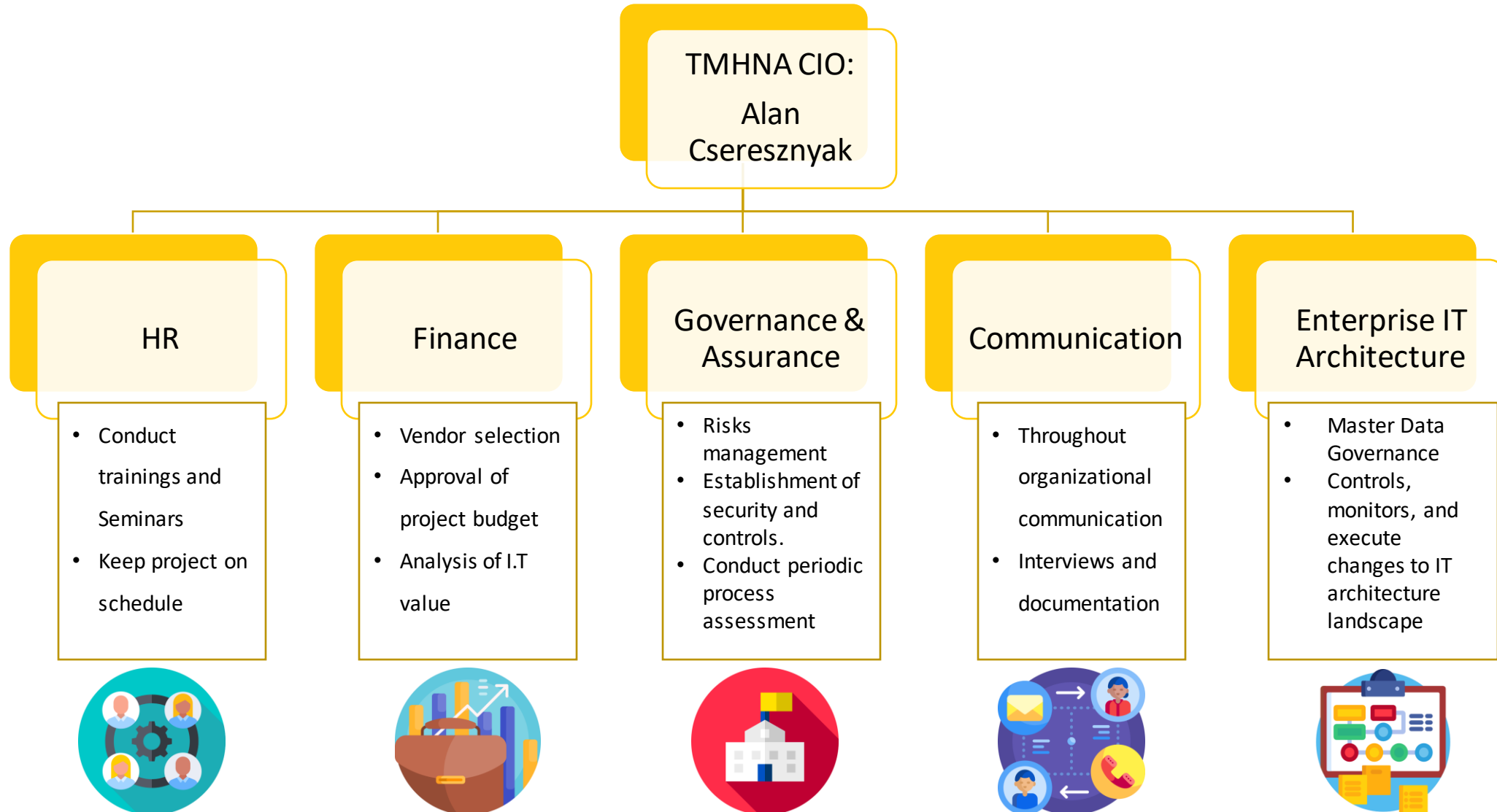
Helps guarantee TMHNA has success during the migration process by offering excellent documentation, increasing the time to value, guaranteeing a smooth transition to cloud and predictable results.



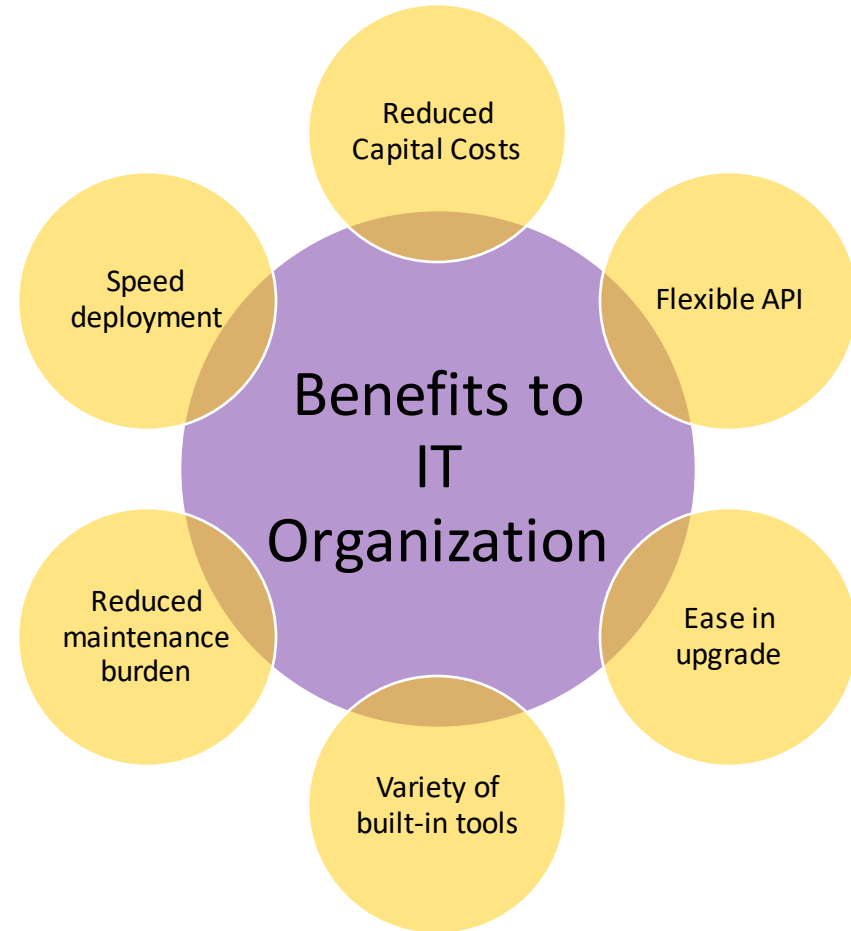
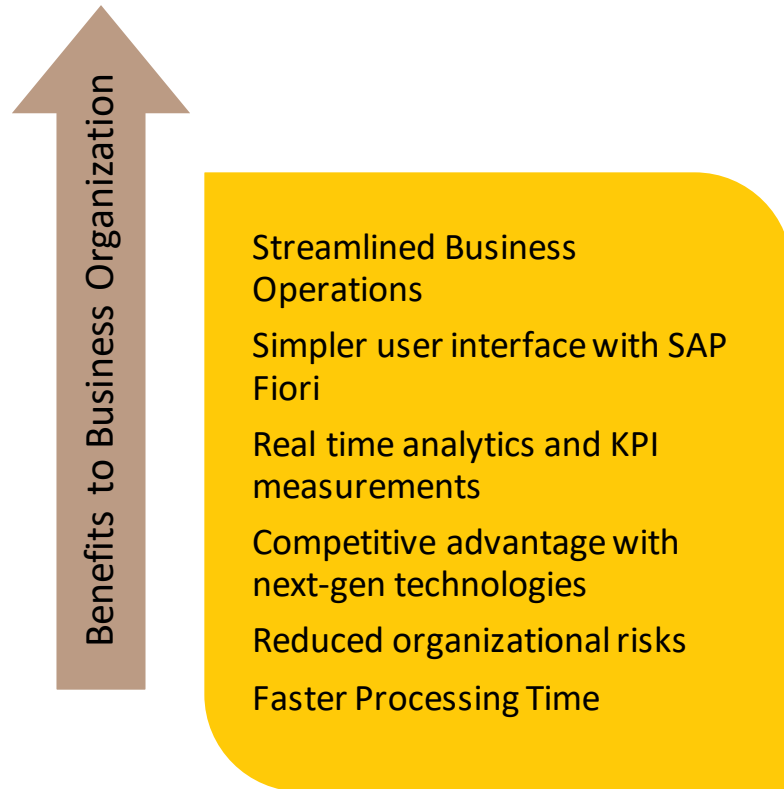
SAP Activate Methodology

Clearly maps out the 6 main phases of implementation to ensure that all stakeholders and implementation actors are aware of all different steps. Acts as a type of combination pillar, leveraging the benefits of the other two in addition to having its own benefits.

Stakeholders

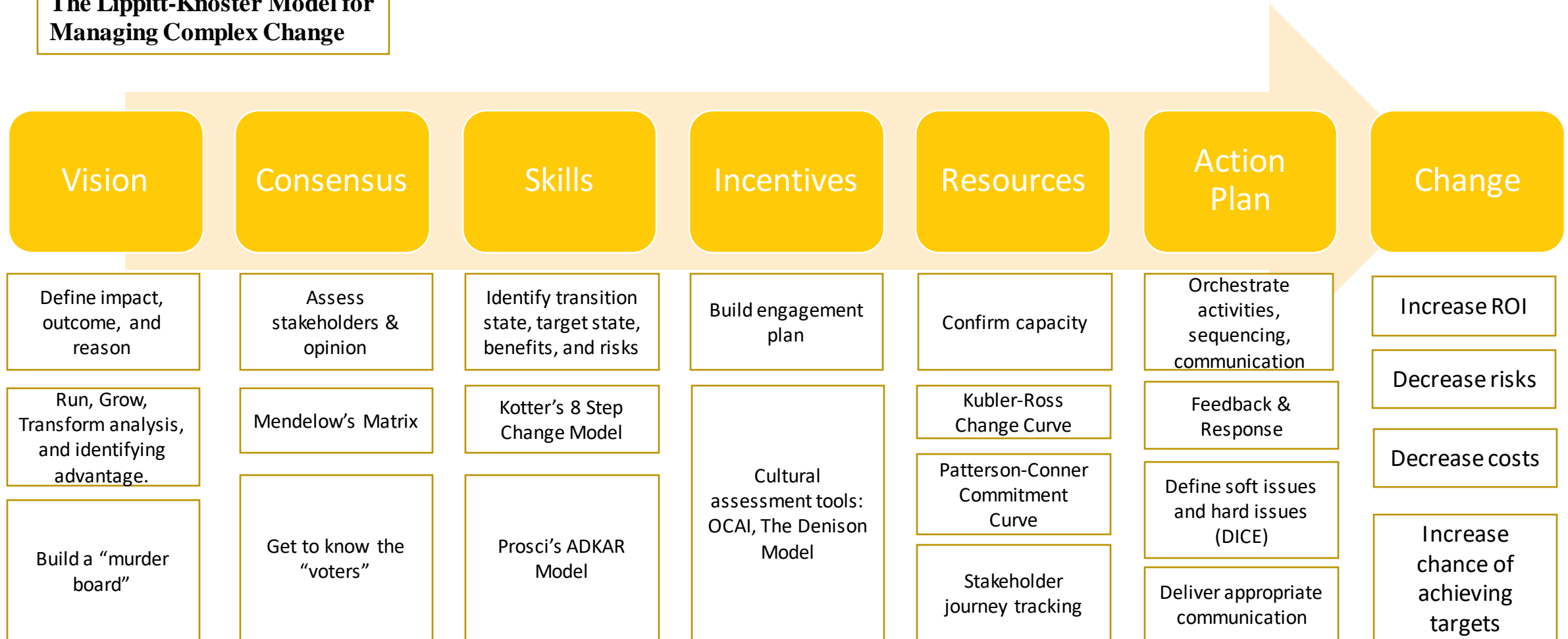


S4/HANA Organizational Benefits



Organizational Change Management

The Lippitt-Knostrer Model for Managing Complex Change



Business Object Data Services (BODS)

Why BODS?

BODS provides an easier development and maintenance of the code interns of easy-to-understand graphical flows via workflows/dataflows. This helps customers to switch from SAP LSMW to BODS with minimum trainings and efforts.

Data extraction and cleasing

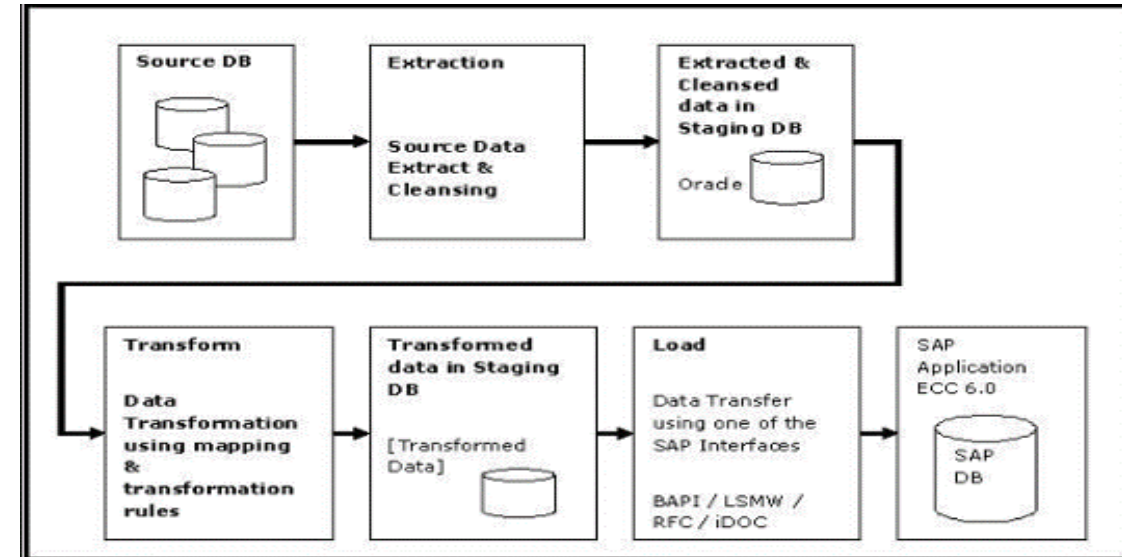
- Connect to different sources identified
- Extract & cleased data using different transformations (Data correction, Data Quality etc)
- Load data in Staging DB

Data transformation

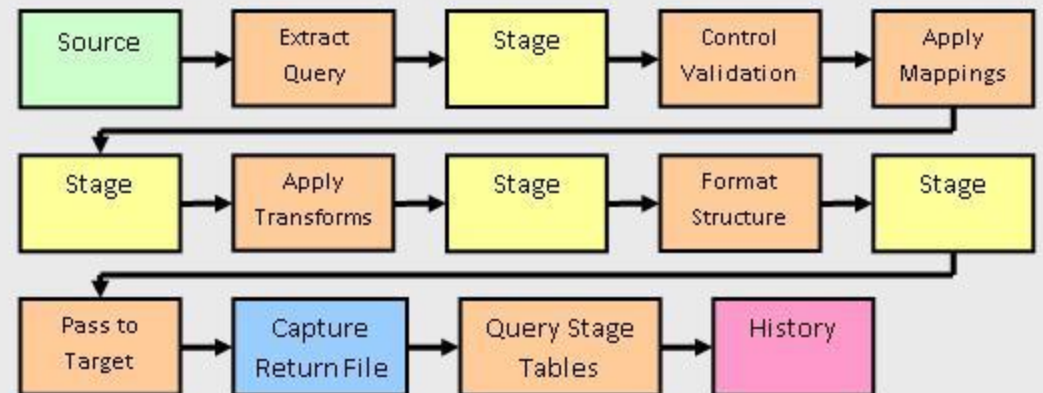
- Connect to Extracted & cleased source, which is in oracle database Staging DB
- Do required data load transformation – and load data in oracle table on staging DD

Load in SAP

- Get data from oracle table in staging DB & call the appropriate load (BAPI/RFC) to load data in



Job Flow:



Batch Data Communication (BDC)

Methods of Batch Input

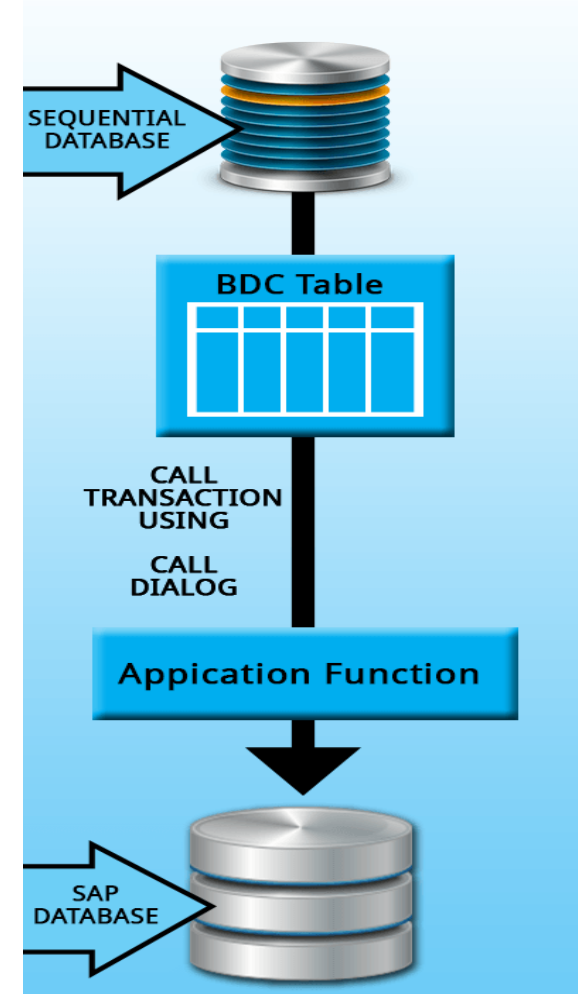
Classical Batch Input Method

- Synchronous processing
- Transfer data for multiple transactions.
- Synchronous database update.
- A batch input process log is generated for each session.
- Session cannot be generated in parallel.

Call Transaction Method

- Faster processing of data
- Asynchronous processing
- Transfer data for a single transaction.
- No batch input processing log is generated.

CALL TRANSACTION USING/ CALL DIALOG :



Batch Data Communication (BDC)

Batch Input Procedures

Analysis of the legacy data. Determine how the data to be transferred is to be mapped in to the SAP Structure. Also take note of necessary data type or data length conversions.

Generate SAP data structures for using in export programs.

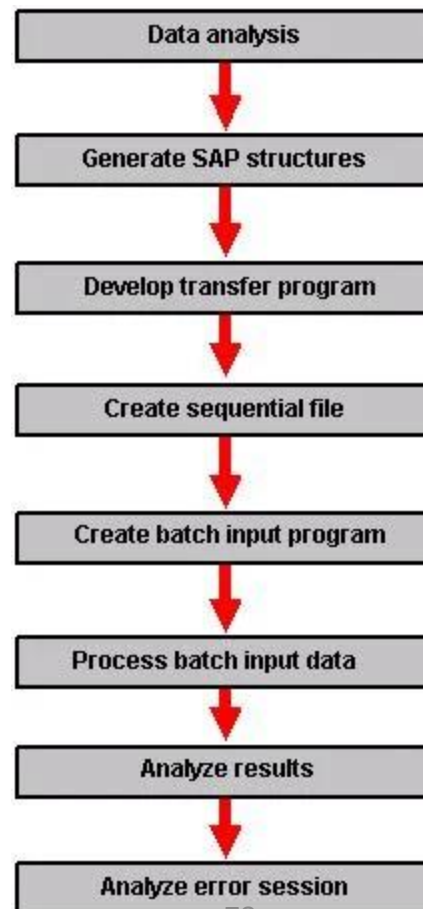
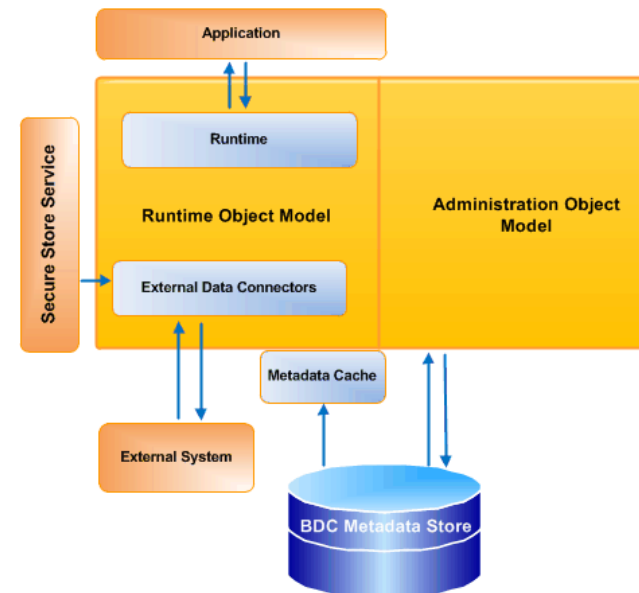
Export the data in to a sequential file. Note that character format is required by predefined SAP batch input programs.

If the SAP supplied BDC programs are not used, code your own batch input program. Choose an appropriate batch input method according to the situation.

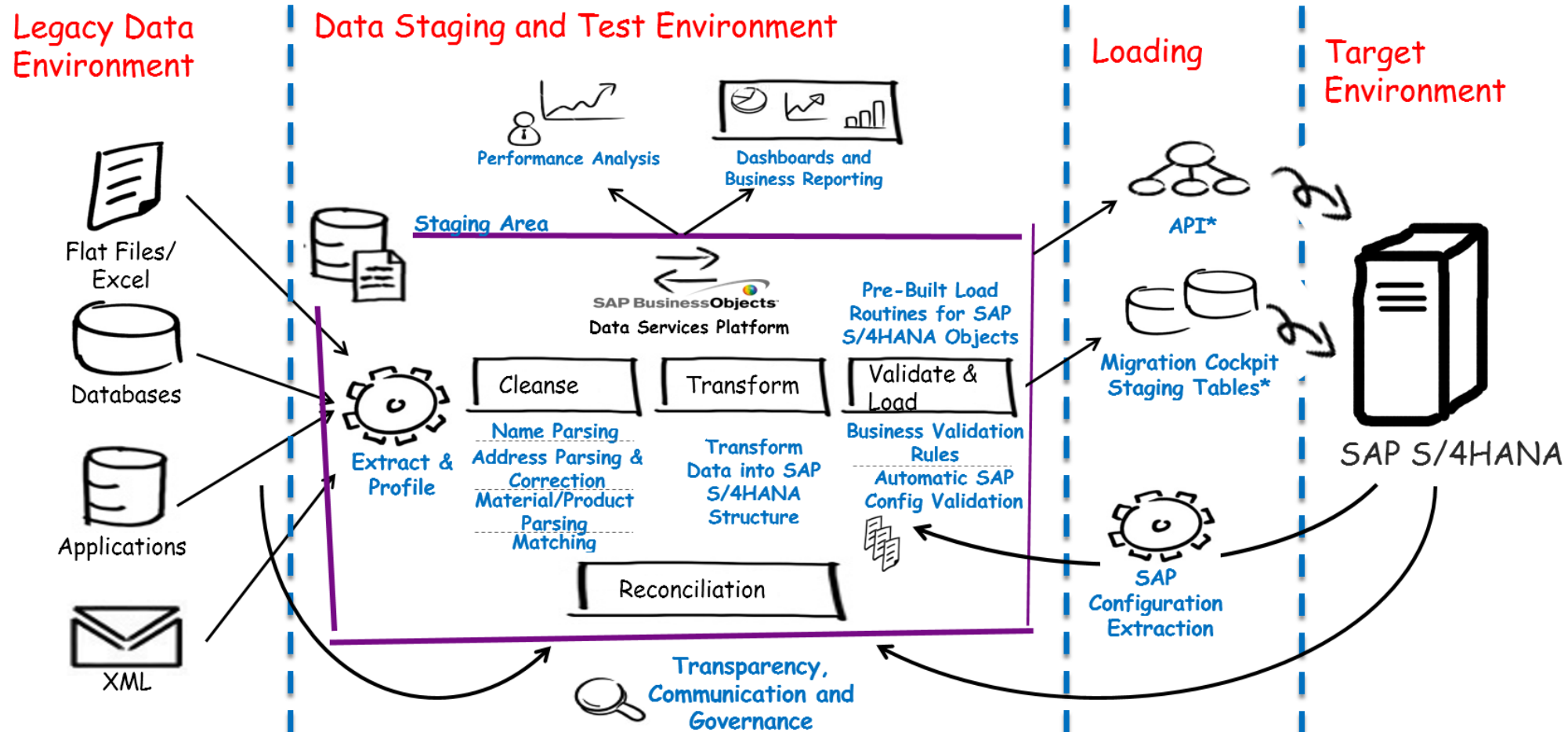
Process the data and add it to the SAP System.

Analyze the process log. For the CALL TRANSACTION method, where no proper log is created, use the messages collected by your program.

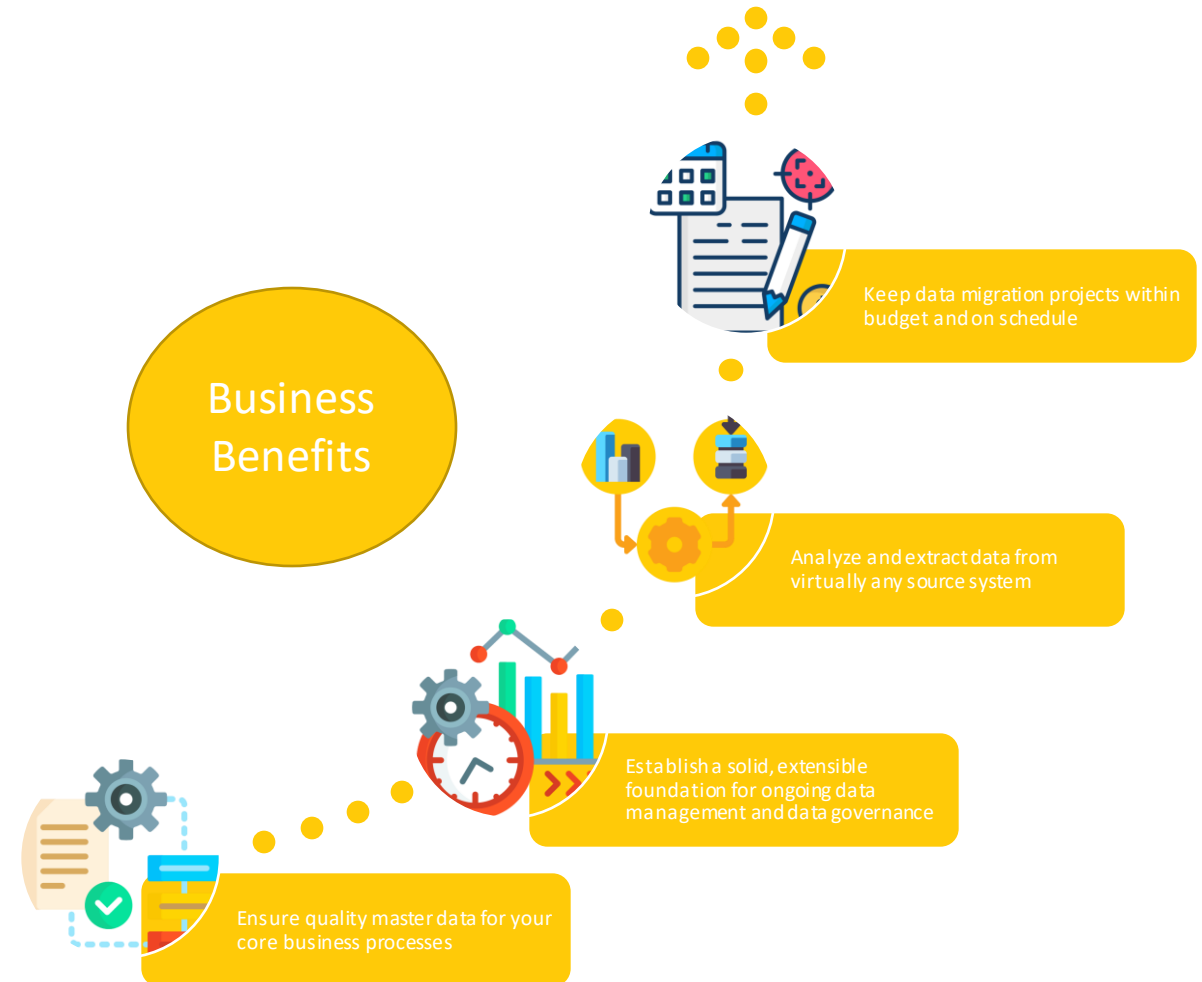
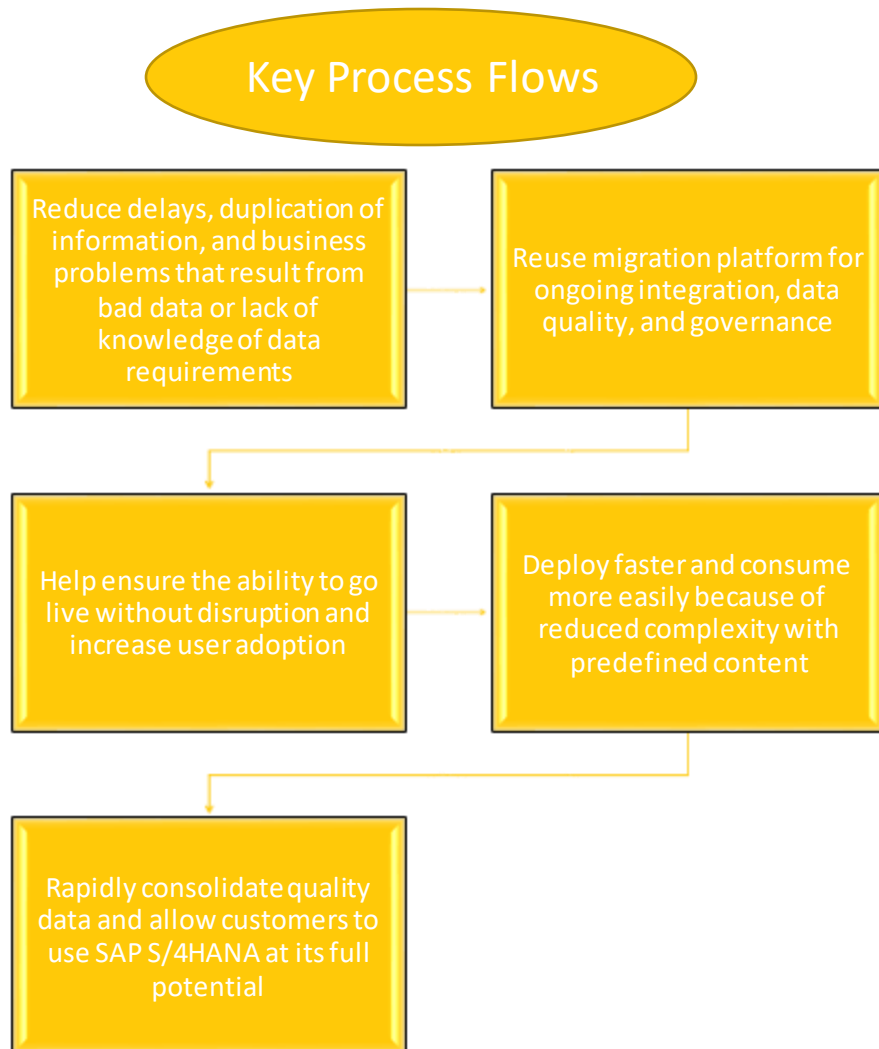
From the results of the process analysis, correct and reprocess the erroneous data.



Rapid Data Migration Architecture






Rapid Data Migration Architecture



SAP Data Migration Solutions Available to Make a Smooth Move to SAP S/4HANA

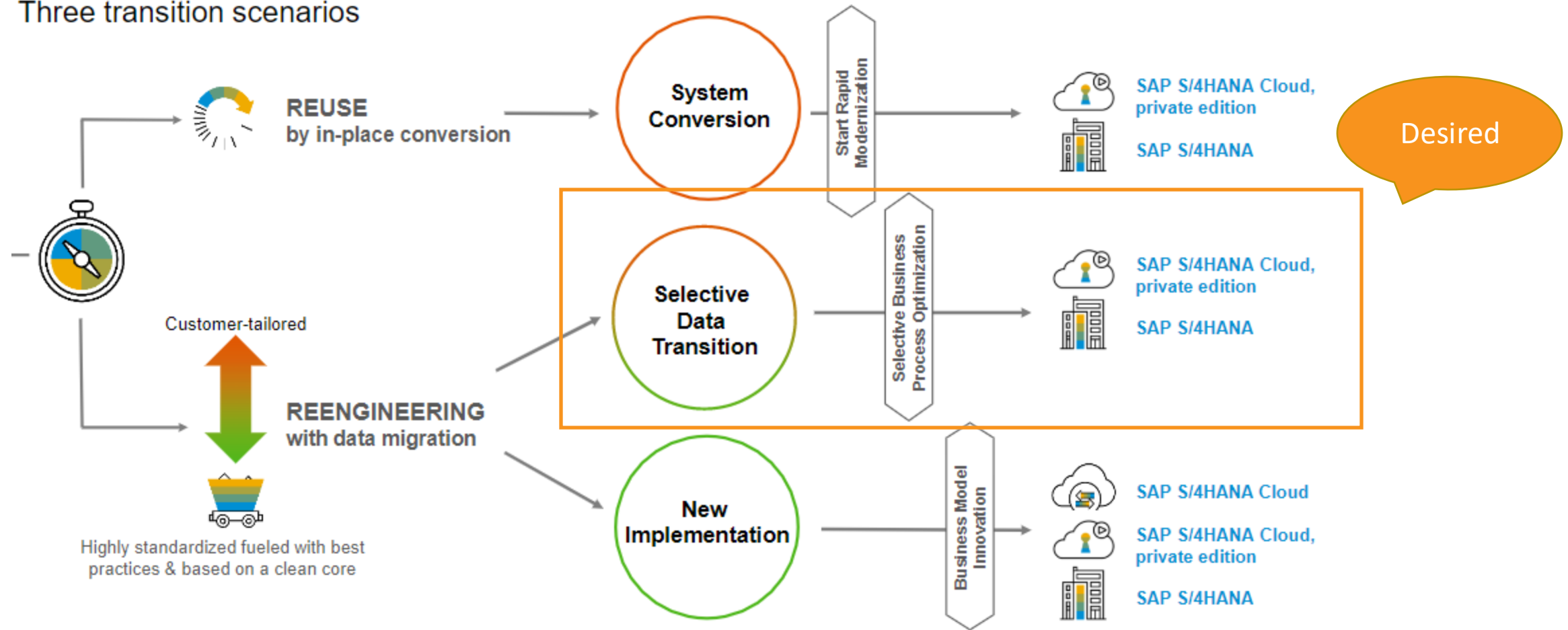
SAP data migration technologies available for S/4HANA migration

New Implementation option

Solution	Usage Scenario	Migration Complexity	Capabilities
SAP S/4HANA migration cockpit	<ul style="list-style-type: none"> One legacy SAP system to S/4HANA Small to large data volumes Minimal transformation required No data cleansing required 		<ul style="list-style-type: none"> Pre-defined migration objects (content and mapping) Migration object modeler for creating custom or adapt existing migration objects for SAP S/4HANA
SAP Data Services with SAP Information Steward	<ul style="list-style-type: none"> Multiple legacy SAP / non-SAP systems to S/4HANA Consolidation of multiple SAP and non-SAP systems for migration Complex data preparation, transformation and cleansing required Reusable for on-going governance after migration 		<ul style="list-style-type: none"> Data profiling / assessment prior to migration Strong data extraction and preparation Reusable sophisticated transformation and data cleansing supported with no coding Monitoring and remediation of post-migration data quality issues
SAP Advanced Data Migration by Syniti	<ul style="list-style-type: none"> Large number of legacy SAP / non-SAP systems to S/4HANA Complementary to Data Services and Information Steward Migration project management, metrics and communication Reusability across project phases and multiple data migration projects 		<ul style="list-style-type: none"> Project-based view, control, and orchestration of migration process, steps, and team Orchestrate the underlying technologies used, e.g. SAP Data Services, SAP Landscape Transformation Collaboration platform for teams of different personas – project manager/s, analysts, developers and LOB stakeholders

S4/HANA Migration Cockpit

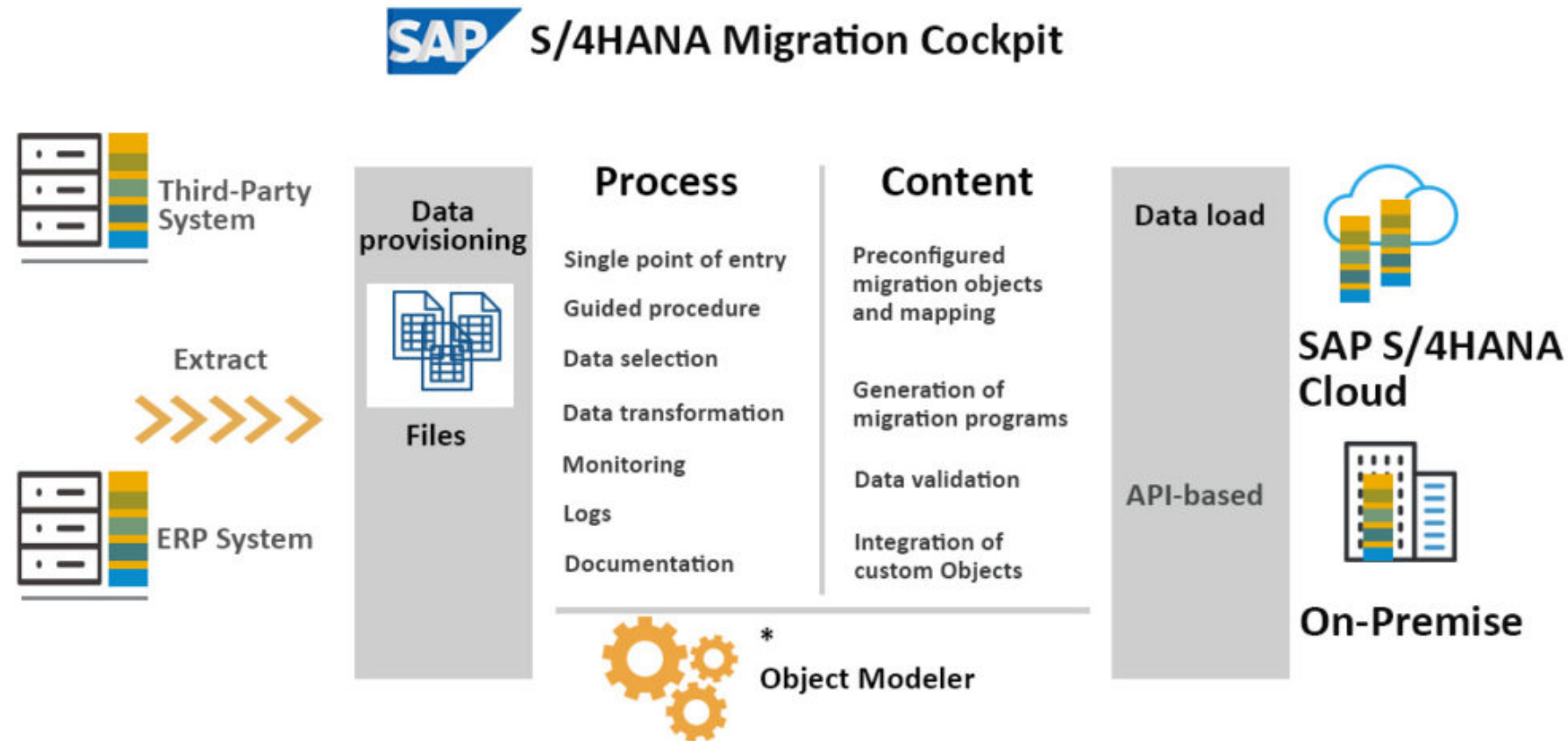
Three transition scenarios



S4/HANA Migration Cockpit

Overview

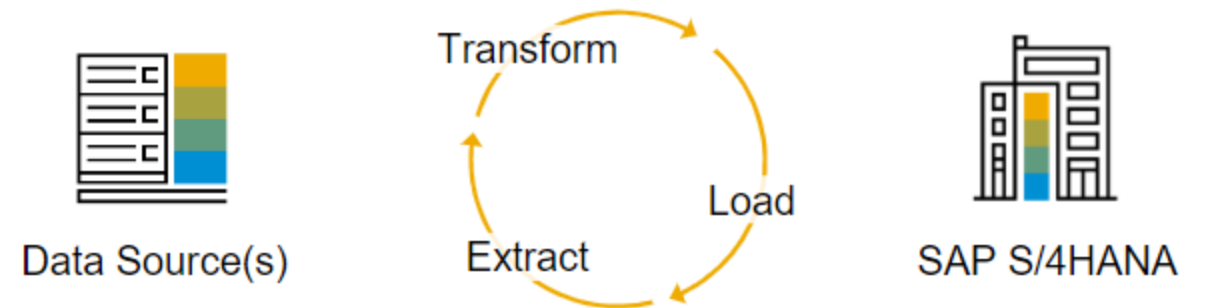
- Part of SAP S/4HANA and SAP S/4HANA Cloud (included in these licenses)
- Supports customers with the “New Implementation” scenario
- SAP’s recommended approach for the migration of business data to SAP S/4HANA and SAP S/4HANA Cloud



S4/HANA Migration Cockpit

Key facilitators

- Out-of-the-box, available for SAP S/4HANA and SAP S/4HANA Cloud, in licenses
 - Preconfigured migration objects
 - No developer skills required
 - Step-by-step guidance through the migration process
 - Preconfigured migration objects and rules
 - Automatized cross-object value mapping
- **Migration object modeler** for custom requirements
 - Powerful and easy-to-use state-of-the-art modeling environment

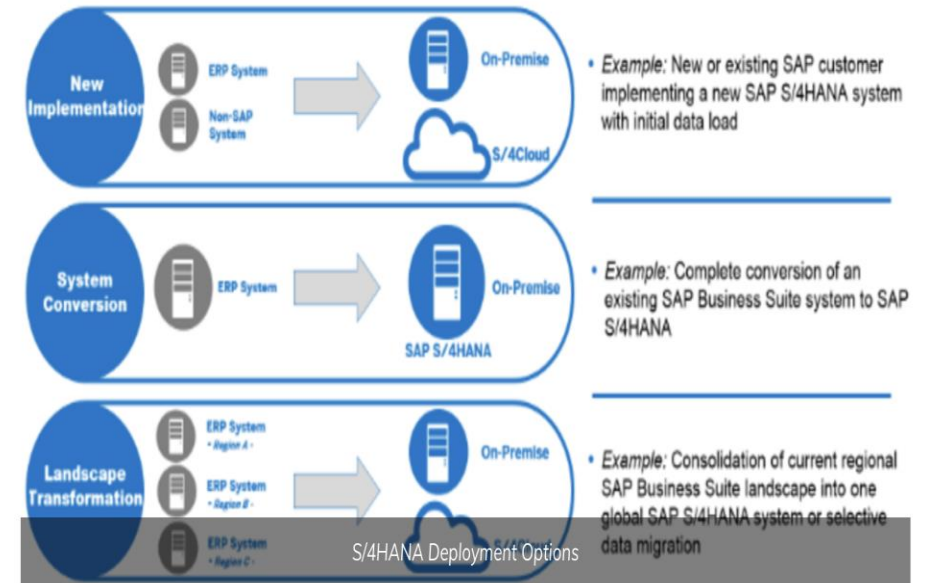


S4/HANA Migration Cockpit

Preconfigured content

Key benefits

- Content (= migration objects) covers all best practice migration objects for **master data and transactional data***
- Automated mapping between source and target structure
- Migration programs are automatically generated – no programming required by the customer
- Standard APIs are used to post the data to SAP S/4HANA system



S4/HANA Migration Cockpit

Migration Object Modeler



Flexible and extendable



Easily integrate custom objects and enhancements into the migration project

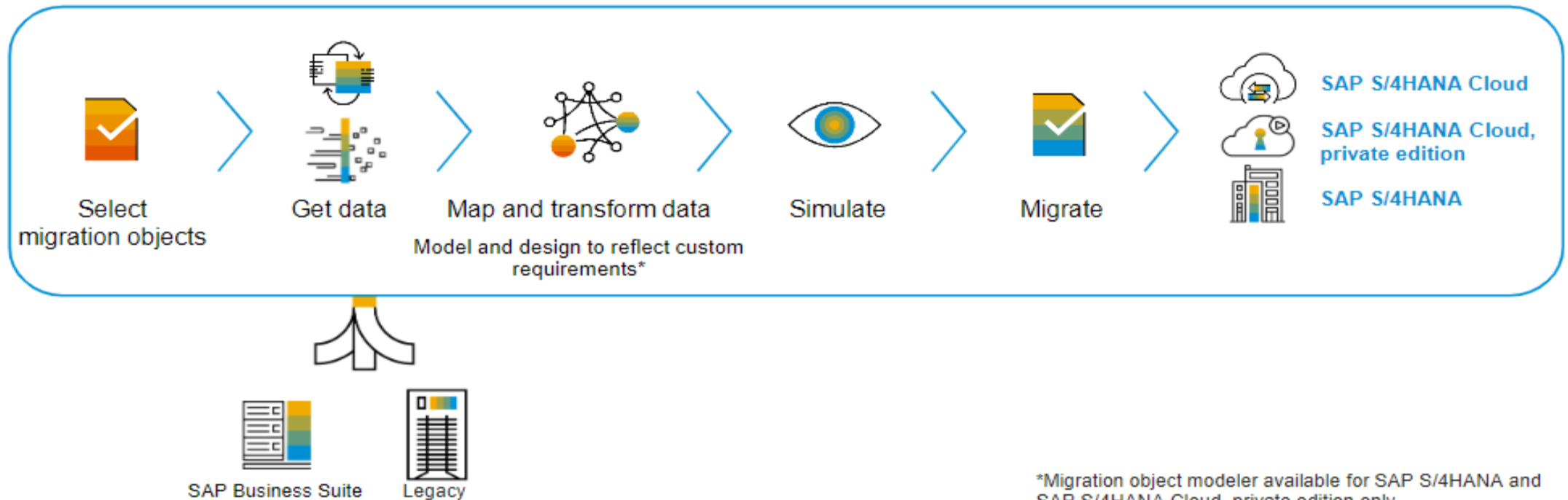
- Customer-specific enhancements to SAP standard objects delivered with the SAP S/4HANA migration cockpit
 - Easily adjust input structure
 - Map structures and fields
 - Add or change migration object selection criteria (Direct Transfer)
- Integration of newly created objects
 - Custom objects
 - SAP standard objects that are not yet in the scope of the SAP S/4HANA migration cockpit
 - Use standard APIs or code your function module

**Transaction:
LTMOM**



S4/HANA Migration Cockpit

Data Migration Process



*Migration object modeler available for SAP S/4HANA and SAP S/4HANA Cloud, private edition only

S4/HANA Migration Cockpit

Transport functionality - Basic facts

- The transport functionality used in the migration cockpit is designed to transport between systems.
- The functionality is new with SAP S/4HANA 2021 release for the approach *Migrate Data Using Staging Tables*.
- You assign a development package while creating a project (SAP Fiori app). This assignment cannot be changed later! This assignment controls the modifiability as well as the transportability of a project.
- You have the possibility to add projects, migration objects, and rules to a transport request in transaction *LTMOM*.
- Projects in non-modifiable systems (e.g. quality and production) cannot be configured any more, they can only be executed. Projects cannot be created there!

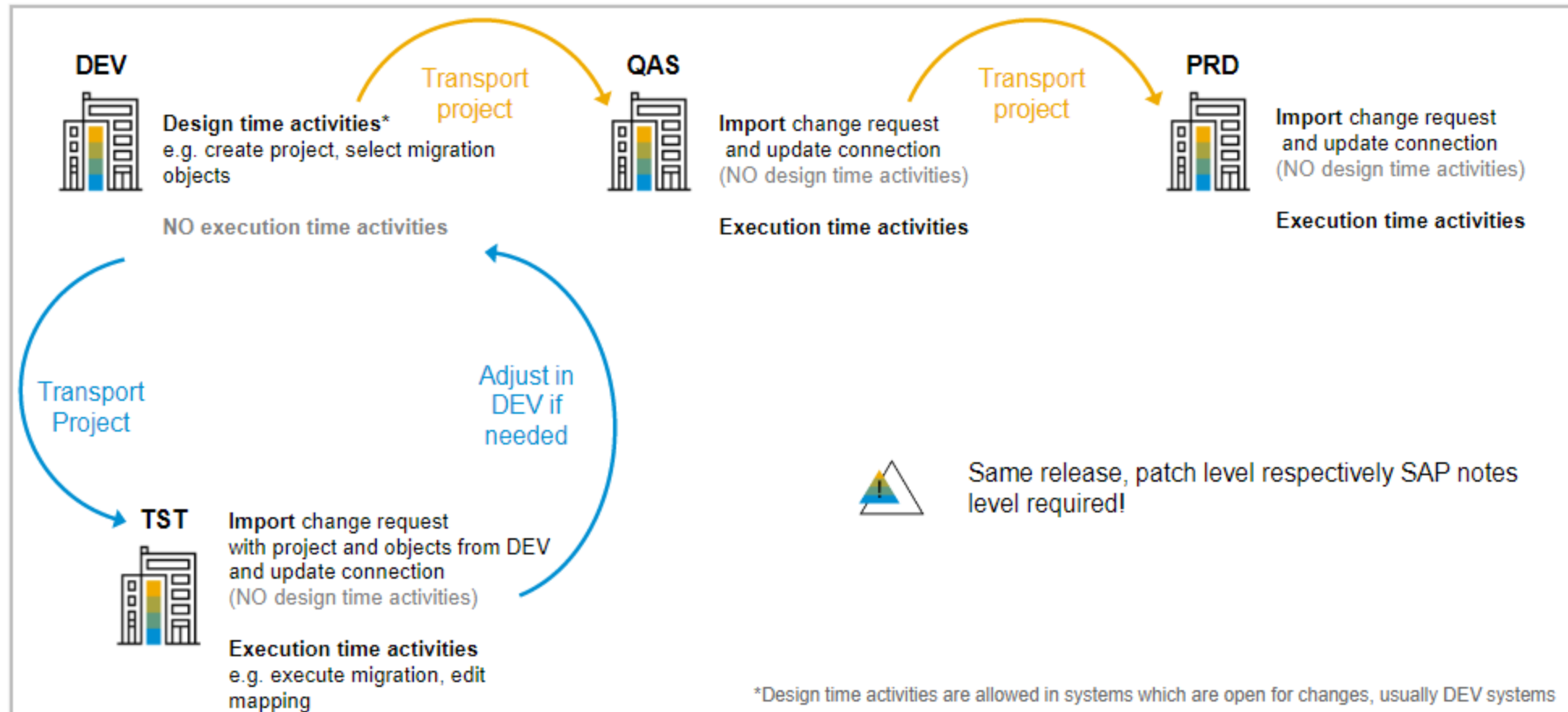


Please note, that already uploaded instances are not transported!

Only the definition of a rule, fixed value, translation object or variable is added to a transport request and transported. No values, for example mapping values, are included.

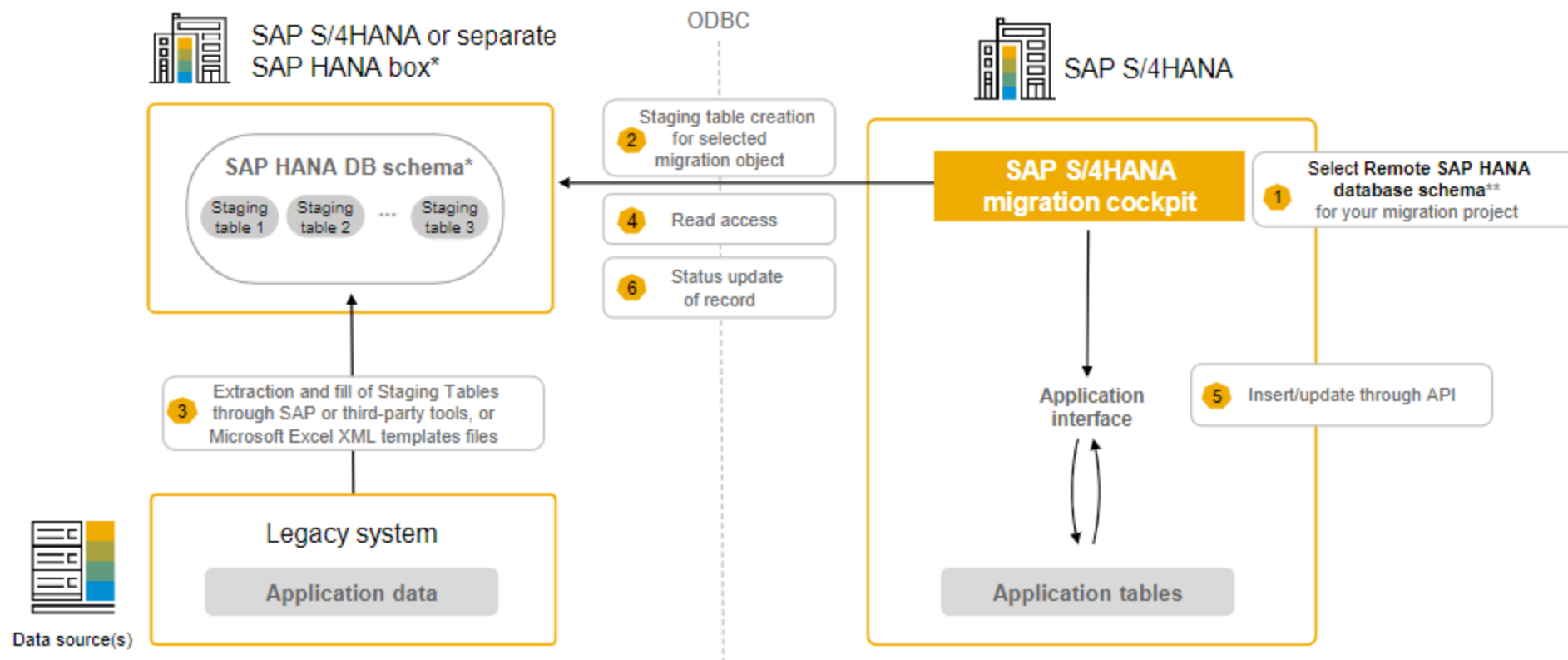
S4/HANA Migration Cockpit

Transport functionality - Concept



S4/HANA Migration Cockpit

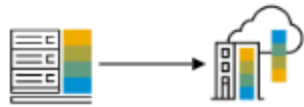
System setup SAP S/4HANA remote SAP HANA database schema



* Separate SAP HANA database schema is required, can also be on SAP S/4HANA target system
** Prerequisite: established secondary database connection

S4/HANA Migration Cockpit

Facilitate Migration Projects with SAP S/4HANA Migration Cockpit



1. Tool of choice for migration to SAP S/4HANA

- Part of SAP S/4HANA and SAP S/4HANA Cloud (included in these licenses)
- Ready-to-use solution
- Support for customers with new implementations



2. Preconfigured migration content specific to SAP S/4HANA

- Comprehensive set of preconfigured migration objects, such as customers, suppliers, and so on
- Automated mapping between source data and SAP S/4HANA target values



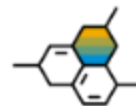
3. Integrated in SAP Activate methodology

- Proven methodology integrated in SAP Activate road map
- Best practices



4. Easy and safe migration

- Two migration approaches
- Step-by-step guidance through the migration process
- Preconfigured migration objects
- Data validation to ensure high-data quality and consistency



5. Flexible and extendable

- Migration object modeler for custom requirements
- Ability to extend existing SAP migration objects
- Integration of custom objects



6. Outlook

- Improved functionality to plan, track and document the data migration
- Provide additional migration content
- Enhanced content upgrade - merge modified migration objects with updates on predefined migration objects
- Direct Transfer for SAP S/4HANA Cloud

S4/HANA Migration Cockpit – data migration objects

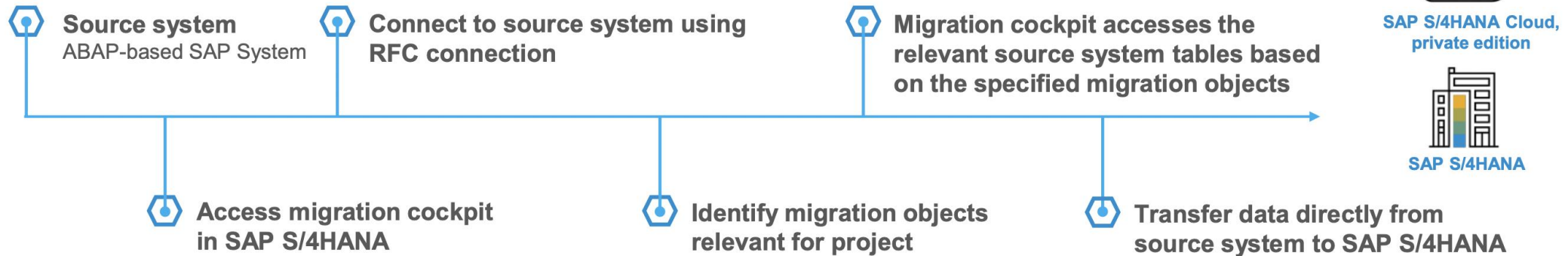
Available objects in S/4HANA 1809:

S/4HANA 1809 Migration Cockpit Available Migration Objects (68)			
Activity Price (restricted)	Equipment task list	Material - extend existing record by new org levels	Purchasing info record- extend existing record
Activity Type	FI - Accounts payable open item	Material BOM	Purchasing info record with conditions
Bank	FI - Accounts receivable open item	Material classification	QM selected set
Bank Account balance	FI – G/L account balance and open/line item	Material consumption	QM selected set code
Batch (if Batch is unique at material level)	Fixed asset (incl. balances and transactions)	Material inspection setting	QM/PM catalog code group/code
Batch (if Batch level is at plant level)	Functional location	Material inventory balance	Routing
Cash memo record	Functional location task list	Material long text	Sales Contract
Characteristics	G/L account	Material trade classification	Sales Order (Only open SO)
Class	General task list	Pricing condition (general, purchasing and sales)	Software/Hardware constraint
Condition Contract	Inspection method	Production Version	Source List
Consent	Inspection plan	Profit Center	Supplier
Cost Center	Internal order (restricted)	Purchase Contract	Supplier - extend existing record by new org levels
Customer	Legal transaction	Purchase info record- extend existing record	VC- Variant Configuration Profile
Customer- extend existing record by new org levels	Maintenance item	Purchase info record with conditions	Work Center
Customer material	Maintenance plan	Purchase Order (Only Open PO)	Xceptional case - Material price change for global currencies
Exchange rate	Master inspection characteristic	Purchase Scheduling Agreement	Xceptional case - Material price chng for global currencies
Equipment	Material	Purchasing contract	

Data Migration with S/4HANA Migration Cockpit – Direct Transfer

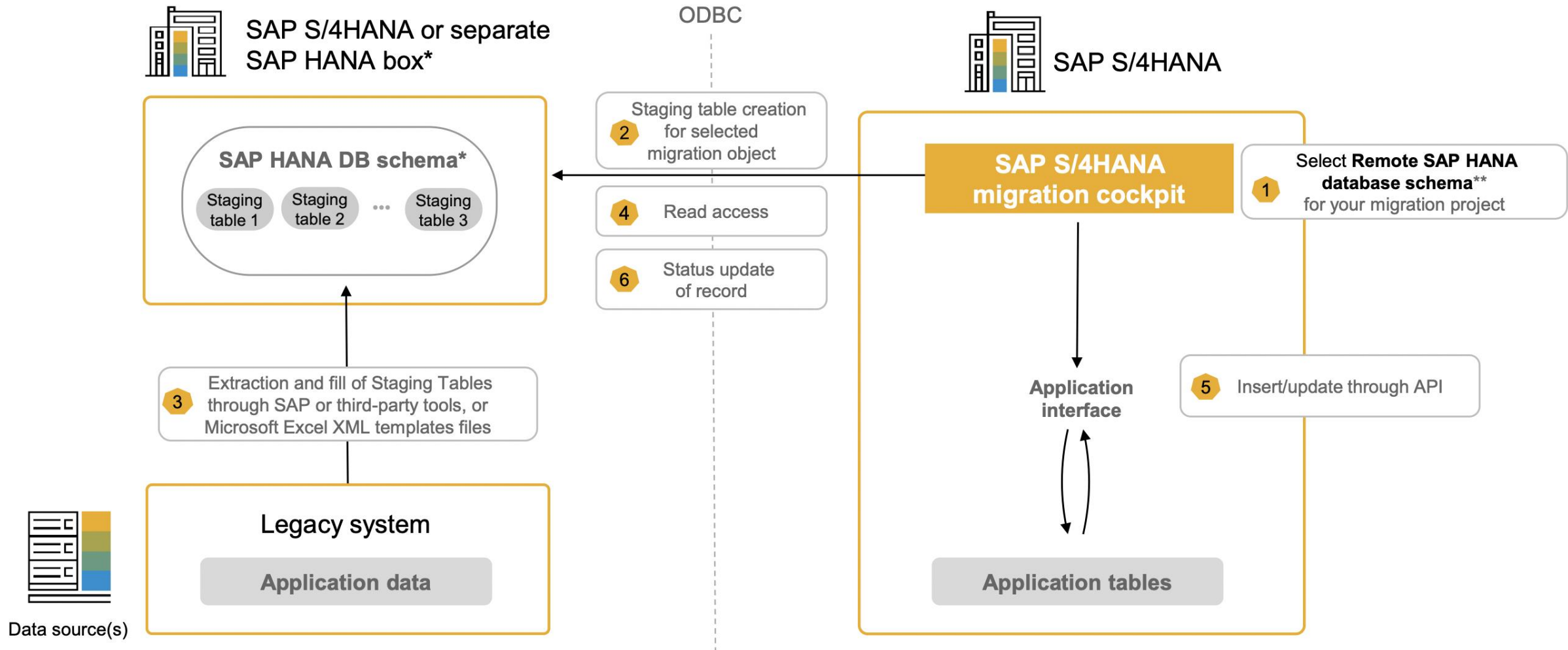
SAP S/4HANA Migration Cockpit – Direct Transfer

Migrate data directly from SAP source system



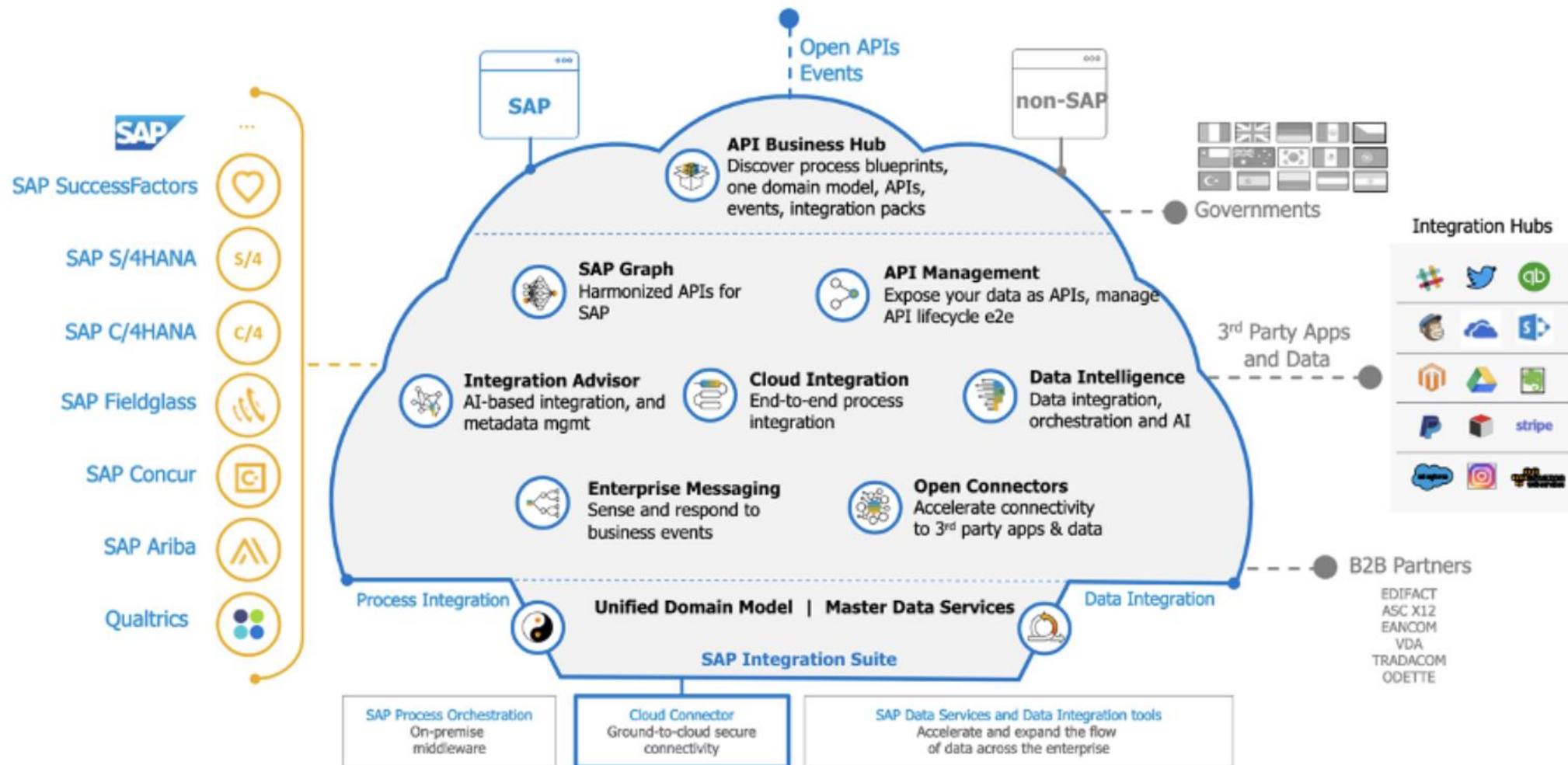
- Suitable for ABAP-based SAP source systems only
- Five migration scenarios supported
 - SAP ERP to SAP S/4HANA
 - SAP Apparel and Footwear to SAP S/4HANA
 - SAP EWM to decentralized EWM based on SAP S/4HANA
 - SAP CRM to SAP S/4HANA for customer management (SAP S/4HANA 1909 FPS01 onwards)
 - SAP APO SPP to SAP S/4HANA eSPP (SAP S/4HANA 2020 FPS01 onwards)

Data Migration with S/4HANA Migration Cockpit – Staging Tables

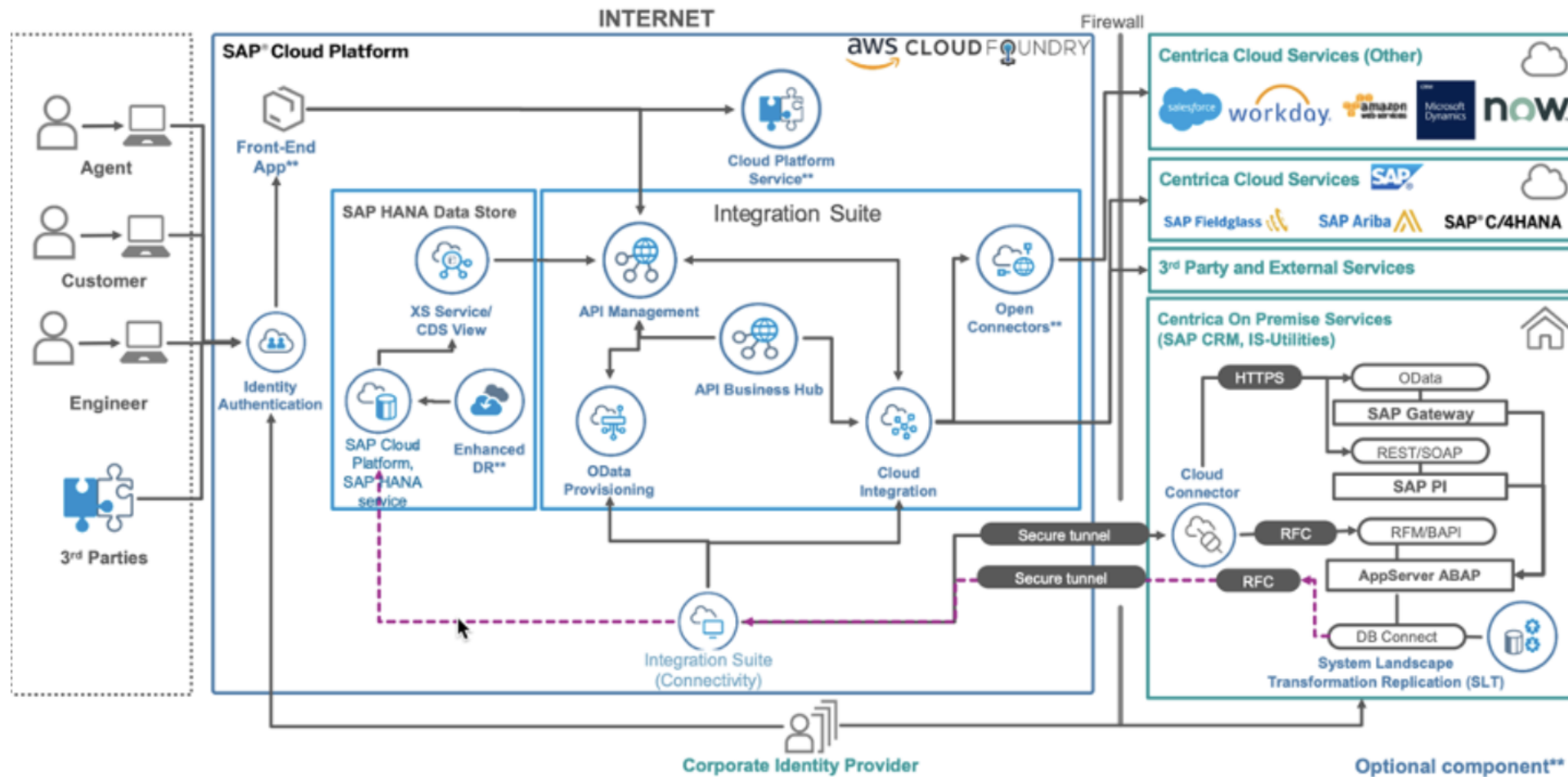


* Separate SAP HANA database schema is required, can also be on SAP S/4HANA target system
 ** Prerequisite: established secondary database connection

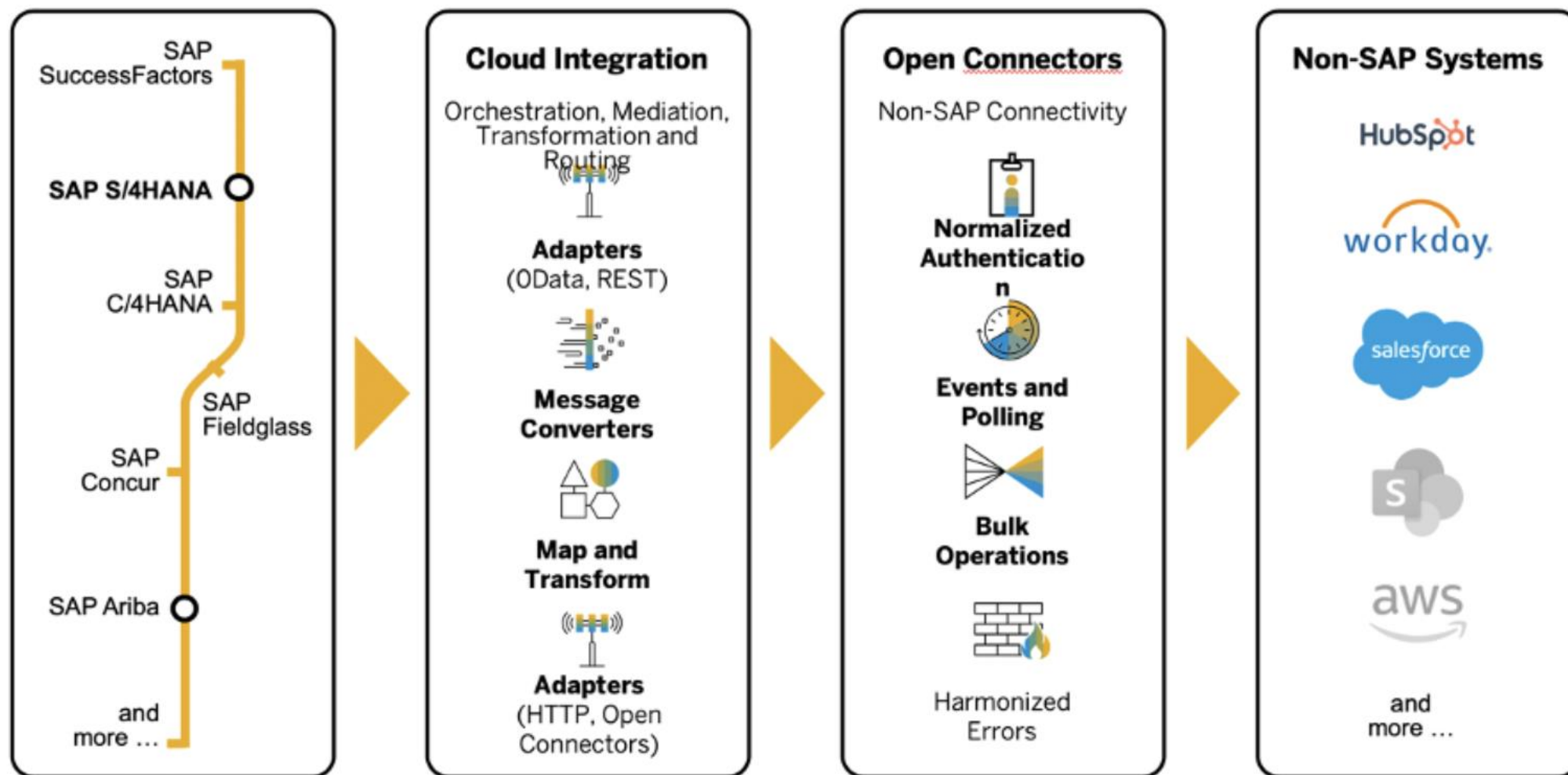
S/4HANA Cloud, private edition landscape – CPI



S/4HANA Cloud, private edition landscape – CPI



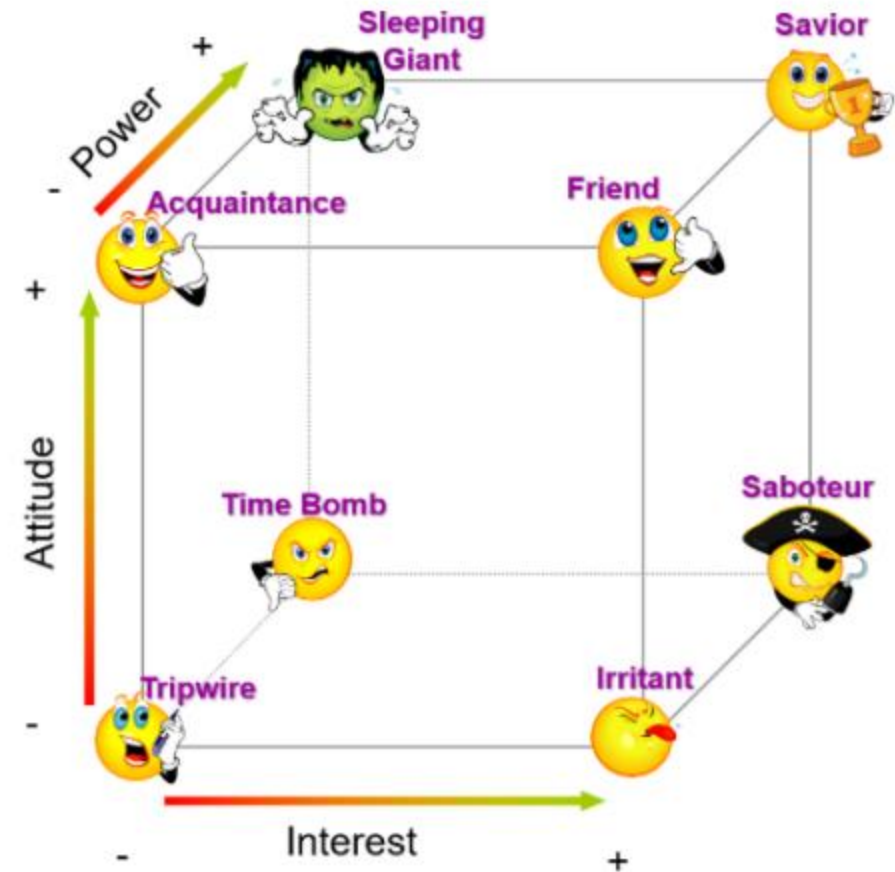
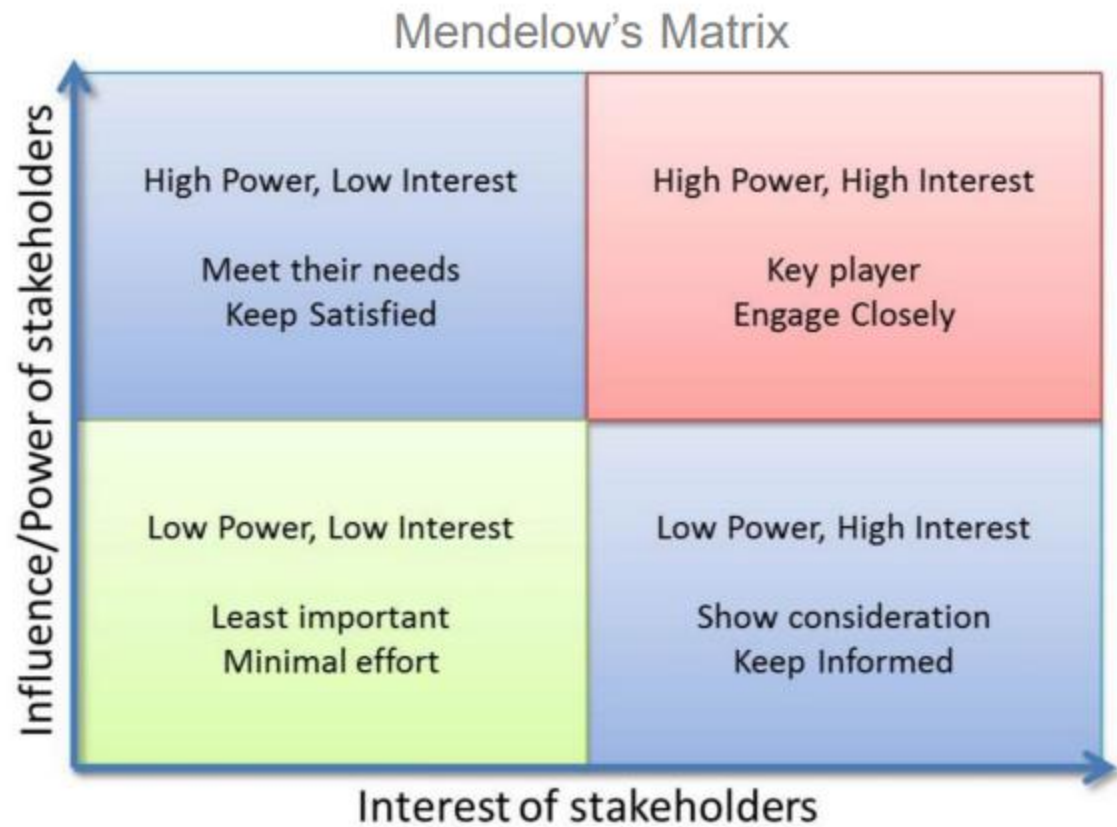
S/4HANA Cloud, private edition landscape – CPI cloud connectors



OCM (Knoster Model)

Vision +	Consensus +	Skills +	Incentives +	Resources +	Action Plan	= Change
Get clear on what is changing, who is impacted, what the future will look like, and why the change is needed and/or better	Reach agreement on the need to change (adapting is better than staying the same)	Ensure everyone is trained and prepared to make the transition and succeed in the future state	Encourage behaviors that support the change agenda and respectfully discourage those that don't	Confirm there is sufficient capacity in the organization to get necessary work done while also managing the demands of the transition	Orchestrate activities, sequencing, and communication so that everyone is clear on where things stand, what happened next, and where things are ultimately headed	Achieve the target state with maximum buy-in plus minimum stress and disruption

OCM (Consensus)

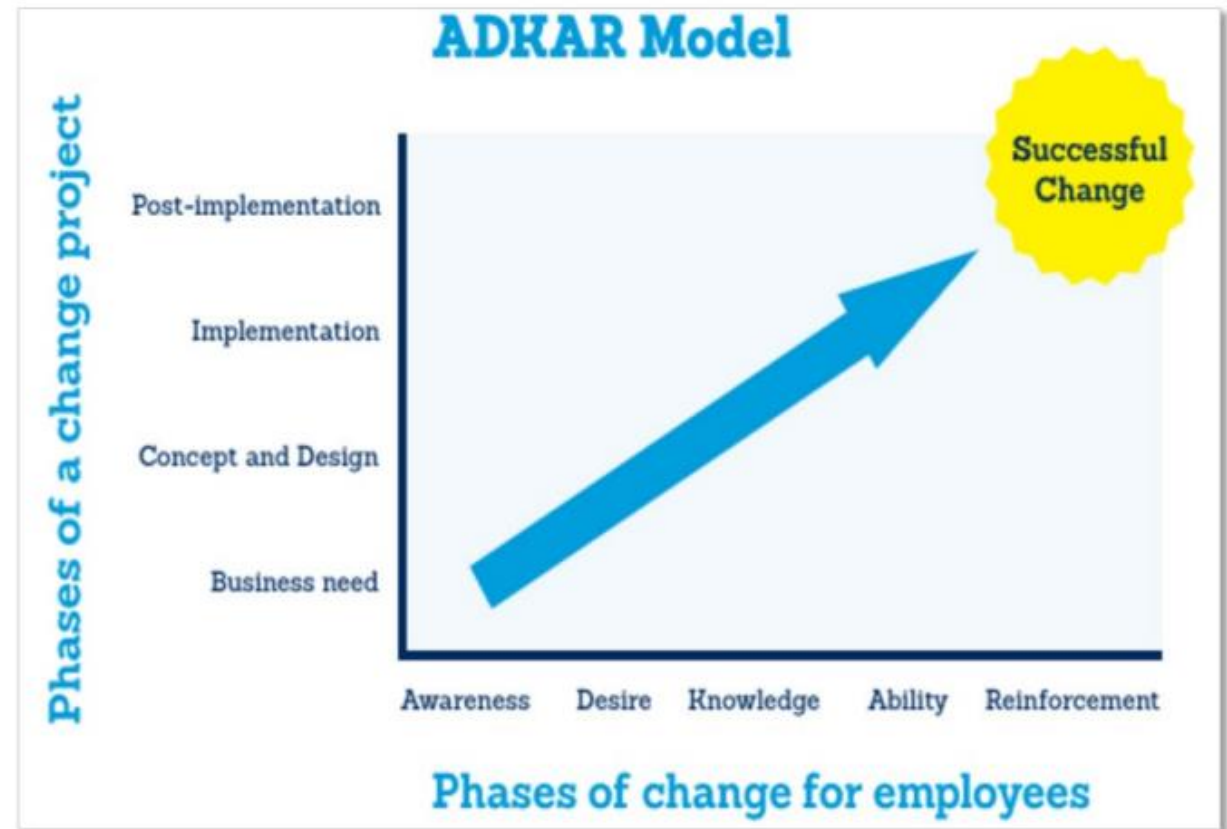


OCM (Skills)

Kotter's 8 Step Change Model

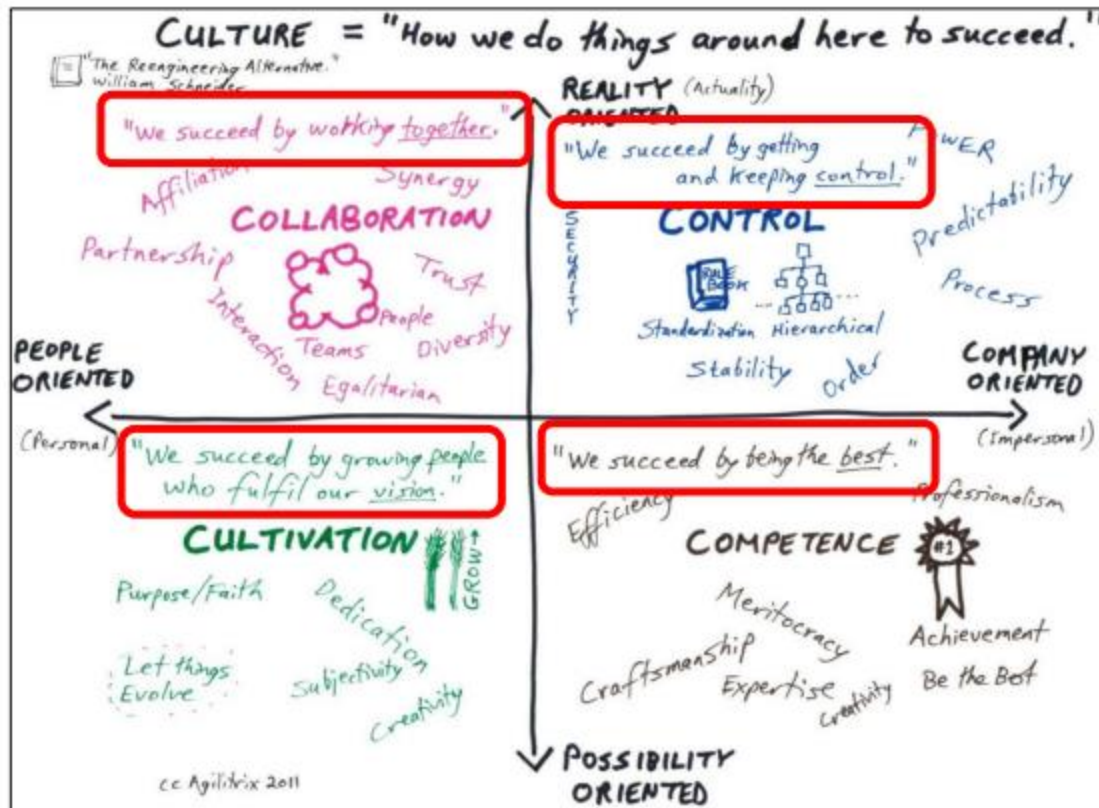


Prosci's ADKAR Model



OCM (Incentives)

Attune to Culture

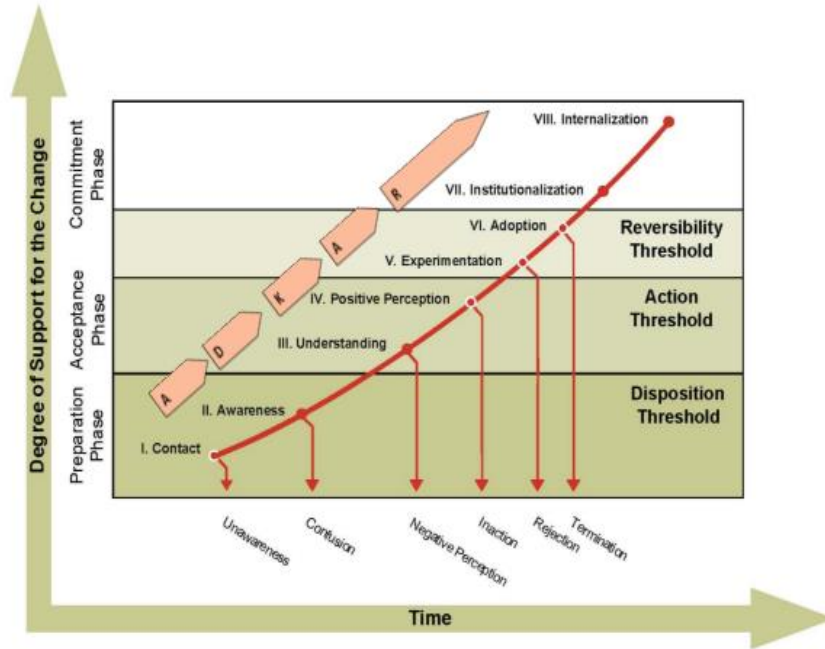


And use the right mix of approaches

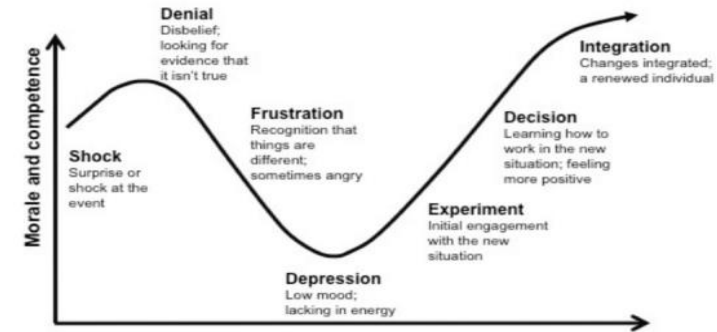


OCM (Resources)

Patterson-Conner Commitment Curve



Kübler-Ross Change Curve



A D K A R

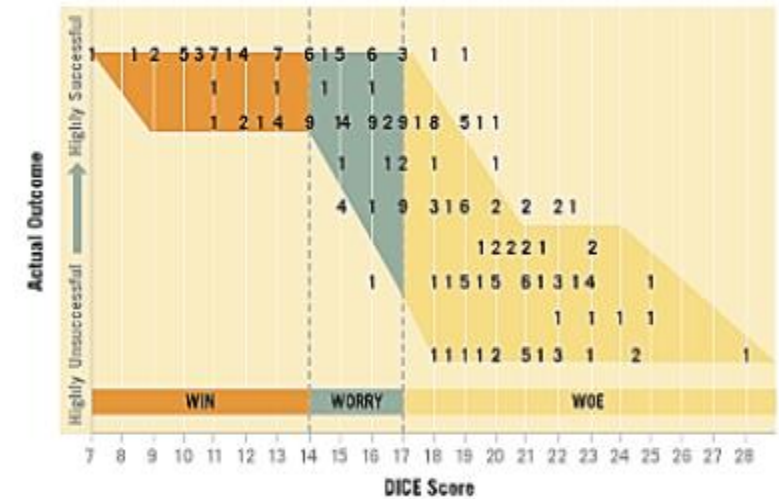
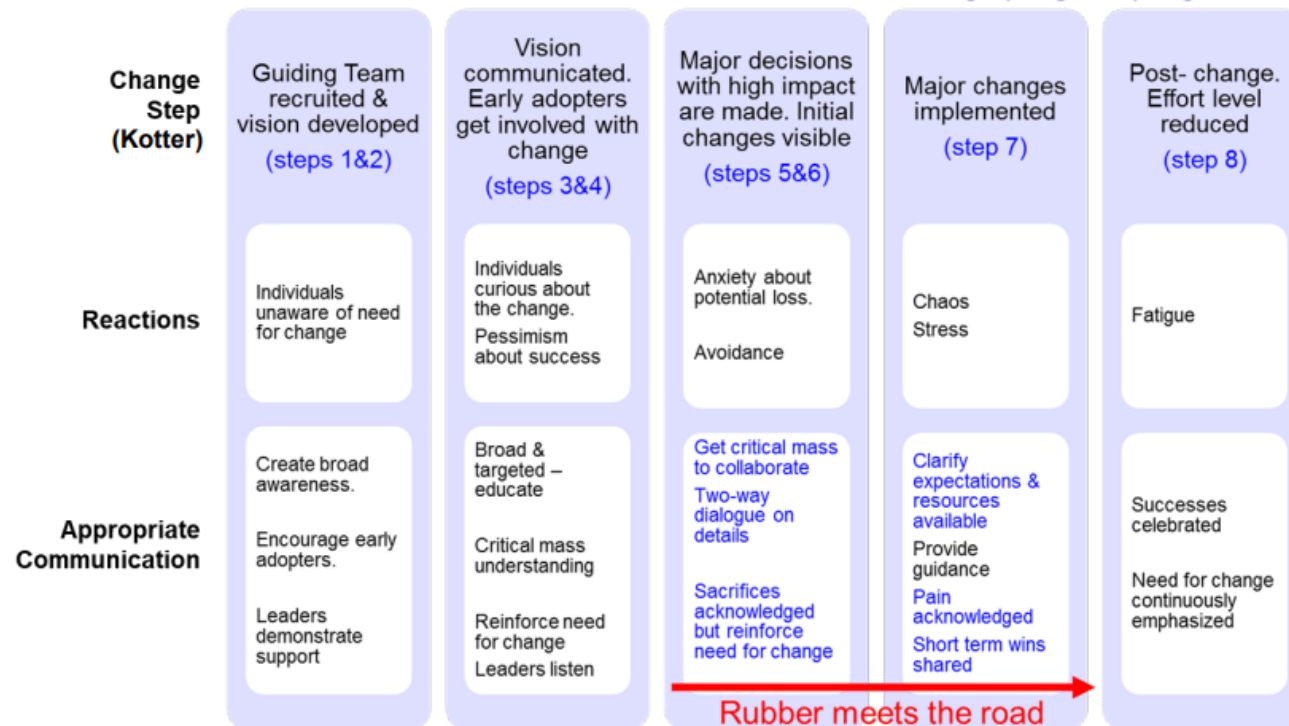
Stakeholder group	Unaware	Aware	Understand	Collaborate	Commit	Advocate
Global business leaders			●	○		
Site leaders				●		○
Mfg. plant leaders			●		○	
Supply chain leaders		●			○	
Maintenance leaders		●				
Union leaders-5 unions		●		○		
Front line supervisors			●	○		
Mfg. employees	●			○		
Supply chain employees	●		○			
Maintenance employees	●			○		
Site HR			●	○		
Site IT			●	○		

● Current

○ Desired

OCM (Action Plan)

The nature of communication is modified as the change program progresses



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Scores of Service Provider - Deloitte

Service Provider

Deloitte.

Overall Satisfaction

4.60

Assessment Criteria for judging service provider

4.44	Organizational change management	4.6	Vision and thought leadership
4.1	Value for money	4.4	Contracting practices
4.4	Quality of functional expertise	4.7	Quality of technical skills
4	Innovation realized	4.3	Proactiveness
4.6	Continuity of staff	4.7	Relationship management
4.4	Quality of integration skills	4.5	Desire to “go the extra mile”

All scores based on a 1-5 scale, with 5 being “Exceptional” and 1 being “Unsatisfactory”

[Gartner \(2020\)](#)

Scores of Service Provider - PwC

Service Provider



Overall Satisfaction

4.90

Assessment Criteria for judging service provider

4.75	Organizational change management	4.70	Vision and thought leadership
4.50	Value for money	4.78	Contracting practices
4.70	Quality of functional expertise	4.60	Quality of technical skills
3.89	Innovation realized	4.20	Proactiveness
4.40	Continuity of staff	4.90	Relationship management
4.40	Quality of integration skills	5.00	Desire to “go the extra mile”

All scores based on a 1-5 scale, with 5 being “Exceptional” and 1 being “Unsatisfactory”

Scores of Service Provider - Cognizant



Service Provider

Overall Satisfaction

4.92

Assessment Criteria for judging service provider

4.57	Organizational change management	4.70	Vision and thought leadership
5.00	Value for money	5.00	Contracting practices
4.88	Quality of functional expertise	5.00	Quality of technical skills
4.38	Innovation realized	4.60	Proactiveness
4.67	Continuity of staff	4.90	Relationship management
4.78	Quality of integration skills	5.00	Desire to “go the extra mile”

All scores based on a 1-5 scale, with 5 being “Exceptional” and 1 being “Unsatisfactory”

[Gartner \(2020\)](#)

Scores of Service Provider - Infosys

Service Provider



Overall Satisfaction

4.56

Assessment Criteria for judging service provider

4.25	Organizational change management	4.56	Vision and thought leadership
4.67	Value for money	4.78	Contracting practices
4.78	Quality of functional expertise	4.89	Quality of technical skills
4.50	Innovation realized	4.56	Proactiveness
4.44	Continuity of staff	4.89	Relationship management
4.75	Quality of integration skills	4.78	Desire to “go the extra mile”

All scores based on a 1-5 scale, with 5 being “Exceptional” and 1 being “Unsatisfactory”

[Gartner \(2020\)](#)

Financial Breakdown

Period (Year)	0	1	2	3
Costs				
One-Time (Non-Recurring Costs)				
Consulting Cost	\$ 1,612,680			
Cost of SAP licenses	\$ 3,000,000			
Cost of infrastructure for S/4HANA	\$ 2,646,000			
Maintenance & Support (4 weeks post implementation)	\$ 63,000			
Cost of staff to design, build, and manage transition	\$ 7,486,500			
Training Cost for Users	\$ 80,634			
Total One-Time Cost per Period	\$ 14,888,814			
Recurring Costs				
S/4HANA Licenses	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000
Cost Of Staff To Design, Build, And Manage Transition	\$ 1,123,500	\$ 609,000	\$ -	\$ -
Running Support Costs	\$ 182,000	\$ 182,000	\$ 182,000	\$ 182,000
Total Recurring Cost/Period	\$ 1,965,500	\$ 1,451,000	\$ 842,000	\$ 842,000
Total Recurring Cost	\$ 4,258,500			
Total Costs (One-Time and Recurring)	\$ 19,147,314			
Benefits				
Revenue Gain	\$ 18,792,000	\$ 20,295,360	\$ 21,918,989	\$ 21,918,989
Increased Customer Retention Due To Capabilities Enabled By SAP S/4HANA	\$ 3,136,500	\$ 3,387,420	\$ 3,685,414	\$ 3,685,414
Accelerated Cash Flow Managing Customer Orders/Demand	\$ 176,800	\$ 176,800	\$ 176,800	\$ 176,800
Accelerated Collections Due To Simplified Accounting Capabilities	\$ 408,994	\$ 441,714	\$ 477,051	\$ 477,051
Increased End User Productivity Due To Reduced Run Times	\$ 855,000	\$ 855,000	\$ 855,000	\$ 855,000
Increased Productivity Of IT Organization Employees	\$ 178,125	\$ 178,125	\$ 178,125	\$ 178,125
Avoided Cost Of Previously Licensed Software And Hardware	\$ -	\$ 225,000	\$ 450,000	\$ 450,000
Total Benefits/Period	\$ 25,559,419	\$ 27,741,379	\$ 27,741,379	\$ 27,741,379
Total Benefits	\$ 81,042,177			
ROI Calculation				
Net Cash Flows (NCF)	\$ (19,147,314)	\$ 23,593,919	\$ 26,290,379	\$ 26,899,379
ROI (Running Total)		201.51%		
Payback Period		13 months		

All values are discounted to present

ROI analysis

IT Budget 4.0% of Revenue (4.0% of 3 Billion)		
Investment	Competitive Advantage 20%	Future Opportunity 10%
	Core Processes 15%	Supporting the Business 10%
Operations	Planned Upgrades 20%	General Maintenance 25%
	Investment 55%	Operations 45%
3- year Benefits-Cost: \$61.9 Million		

Breakdown for S/4HANA Migration Project

TMHNA Revenue	\$ 3 Billion
TMHNA IT Budget (%)	4.0 %
TMHNA IT Budget (\$)	\$ 120 Million
Core Processes Distribution (%)	15%
Core Processes Distribution (\$)	\$ 18 milion

S/4HANA Migration Budget (%)	TBD
S/4HANA Migration Budget (\$)	TBD

NPV 19.1 Million	Payback 13 Months	ROI 201.51 %
---------------------	----------------------	-----------------

Business Process Evaluation and Improvement of E2E processes

SAP Innovation and Optimization Pathfinder SAP

Toyota Industries Nort.. System: PRD

OVERVIEW **FINANCE** SOURCING AND PROCUREMENT SALES SUPPLY CHAIN MANUFACTURING ASSET MANAGEMENT IMPROVE E2E PROCESSES OPTIMIZE I.T. NEXT STEPS

SUMMARY SIMPLIFIED USER EXPERIENCE **SAP ENHANCEMENT PACKAGES** SAP S/4HANA CLOUD SOLUTIONS ?

S4 HANA Next-Generation Digital Business

Customer-specific SAP S/4HANA recommendations

Based on Toyota Industries North America, Inc current system usage of system PRD we have created a list of relevant SAP S/4HANA innovations which could be highly relevant for you.

Learn more about recommended innovations by clicking directly on the provided links.

Get all details and request your [Process Discovery for SAP S/4HANA Transformation](#) »

Overview of relevant SAP S/4HANA business scenarios for Toyota Industries North America, Inc:

SAP S/4HANA Business Scenario*	Your Current Usage Intensity	Industry Popularity	SAP Fiori Apps
Financial Accounting	★★★	★★★	
Delivery Management	★★★	★★★	
Accounts Payable	★★★	★★★	
Accounts Receivable	★★★	★★★	
Profitability Analysis	★★★	★★★	
Product Costing	★★★	★★★	
Cash and Liquidity Management	★★★	★	
Entity Close	★★★	★	
Overhead Cost Management	★★★	★★★	
Financial Reporting	★★★	★★	
Access Governance and Identity Management	★★★	★	
Enterprise Risk Management	★★★	★	
International Trade Management	★★★	★	

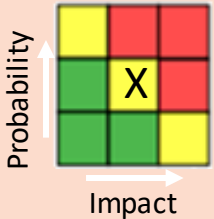
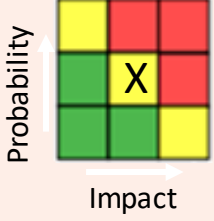
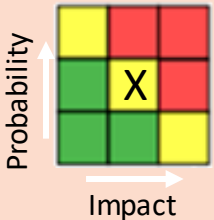
* Solution Capability **Next Steps** »

High industry popularity yet lower usage intensity

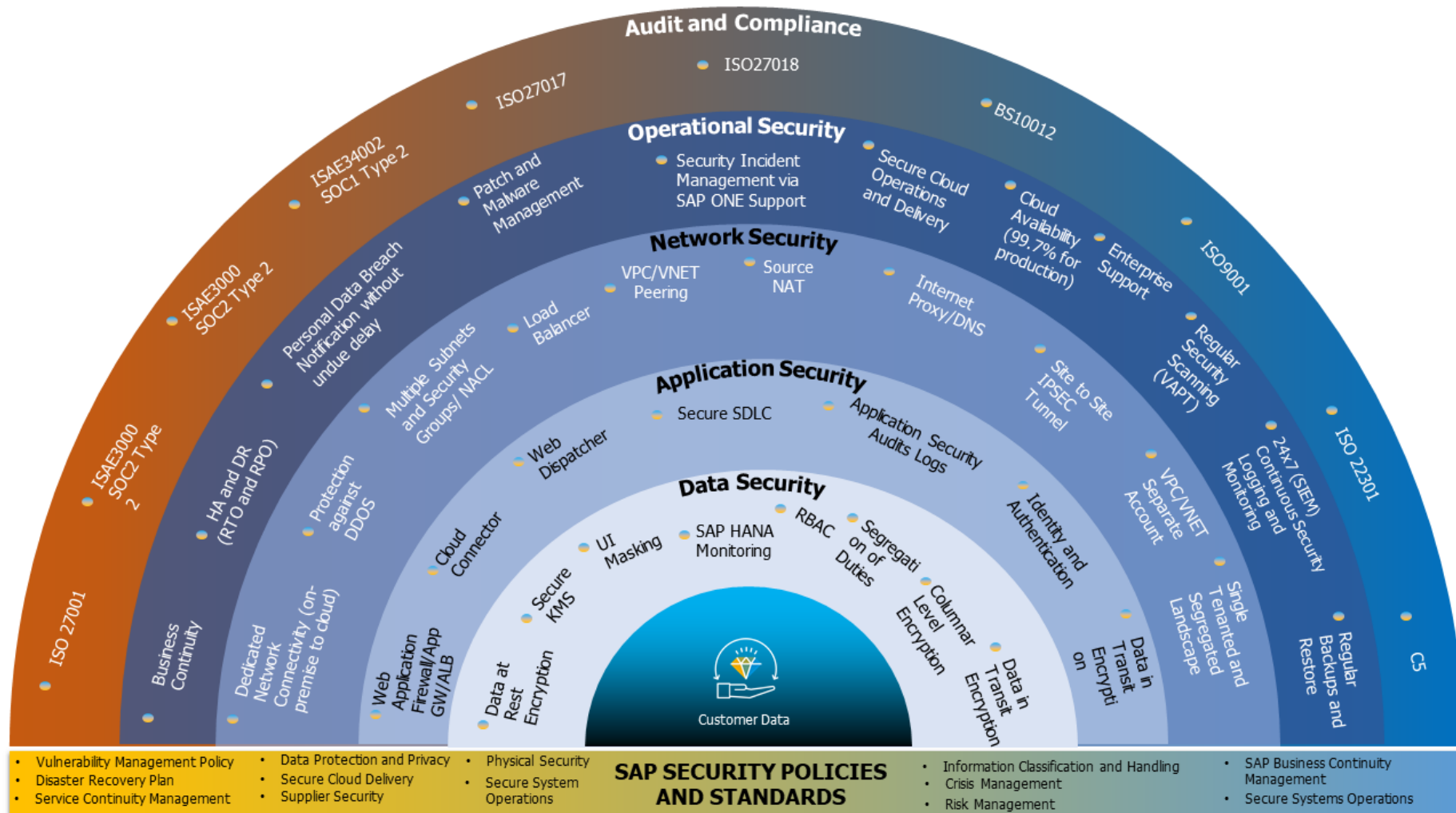
SAP Configuration Risks and Mitigations

Risks	Risk Profile	Mitigation Strategies
Project schedules are driven by externally-dictated date	<p>A 3x3 matrix with 'Probability' on the y-axis and 'Impact' on the x-axis. The grid is colored as follows: (1,1) Yellow, (1,2) Red, (1,3) Red, (2,1) Green, (2,2) Green with an 'X', (2,3) Red, (3,1) Green, (3,2) Green, (3,3) Yellow.</p>	<p>During the project planning process, team members from both the customer and partner should work together to develop an agreed deployment schedule. Should this schedule conflict with an externally-driven date, the overall project team will need to work to adjust the schedule accordingly or develop a strategy for deployment that satisfies the business required date.</p>
Poor buy-in from customer project team members	<p>A 3x3 matrix with 'Probability' on the y-axis and 'Impact' on the x-axis. The grid is colored as follows: (1,1) Yellow, (1,2) Red, (1,3) Red, (2,1) Green, (2,2) Green with an 'X', (2,3) Red, (3,1) Green, (3,2) Green, (3,3) Yellow.</p>	<p>Every effort should be taken to engage key team members early in the project. The intent is to provide them with the information necessary to not only support the project, but to also be a champion on its behalf.</p>
Lack of supporting technical infrastructure	<p>A 3x3 matrix with 'Probability' on the y-axis and 'Impact' on the x-axis. The grid is colored as follows: (1,1) Yellow, (1,2) Red, (1,3) Red, (2,1) Green, (2,2) Green with an 'X', (2,3) Red, (3,1) Green, (3,2) Green, (3,3) Yellow.</p>	<p>An early task within the implementation will be to assess current network infrastructure and ensure minimum requirements are met to support the overall solution.</p>

Risks and Mitigations with KPI Solutions

Risks	Risk Profile	Mitigation Strategies
Employee risk/ Bring your own device		<p>TMHNA will need strong procedures and policies to govern connections with third-parties, BYOD devices, and cloud-based services. We will also be using encryptions, VPNs, and private networks</p>
Breach Detection		<p>TMHNAs breaches will be detected by their individual I.T. teams. The average company takes more than 200 days to detect a breach. The earlier the IT department detects it, the less risk.</p>
Incident Cost		<p>Allocating how much time and resources the company should spend on a specific data breach will be standardized with an incident cost KPI. This will track the Cost Per Incident of TMHNA, try to correctly bring in all resources, both human and technical, that were required to find the thread and fix it.</p>

Approach to Multi-Layer Defense in Depth Architecture



Current State

Separate dealers for TMH and Raymond

Separate vendor login and access portals for both TMH and Raymond

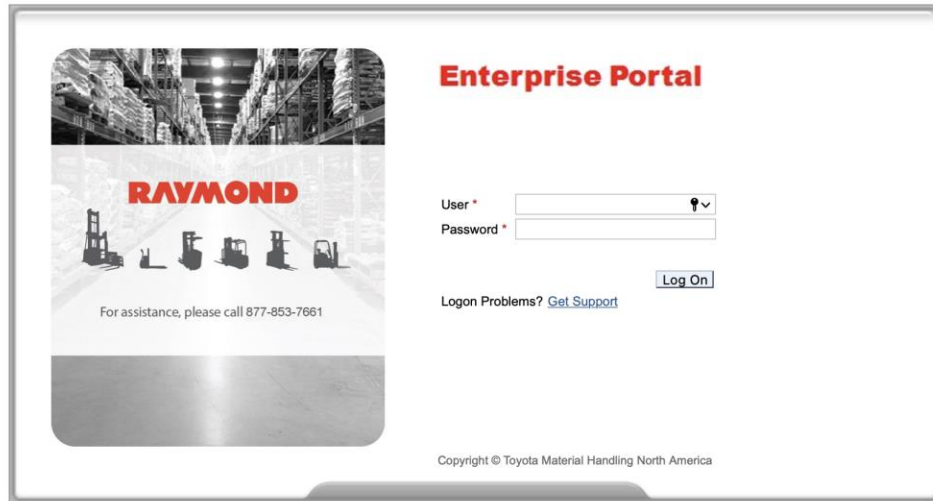
Individual sales channels

Usage of single instance SAP ECC 6

Individual data warehouses for both subsidiaries

Separate IT infrastructure and applications deployed and used by both subsidiaries

Current State – Vendor Portals



Both subsidiaries have separate enterprise portals for access to applications, services and data.

Desired State

Common sales channels for both subsidiaries

One login and access portals for both TMH and Raymond

TMHNA's collective array of products available across dealerships

SAP Migration to S4/HANA from ECC

Access to collective data through data virtualization

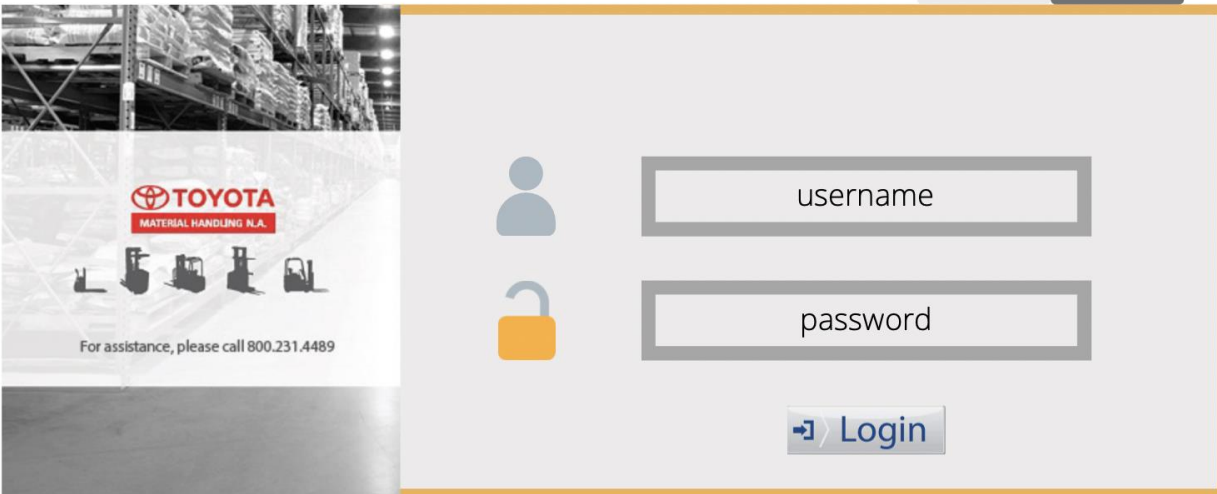
Applications standardized and integrated across TMHNA

Desired State – Vendor Portals

Both subsidiaries have one enterprise portal for access to applications, services and data.

One dealer portal, one customer portal and one supplier portal.

Enterprise Portal Supplier Dealer



username

password

[Login](#)



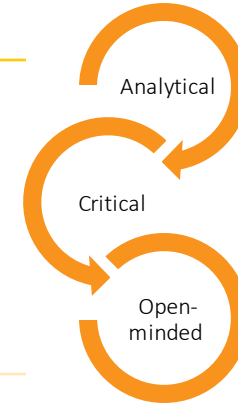
Toyota Employee Persona – Michael Lim



Walmart Analyst
Merchandising Replenishment
Position Summary

Implement complex inventory strategies within categories by building forecasts to align with merchandising needs; validate and implement new item forecasts; monitor and calibrate store forecasts; and operate and manipulate office productivity software, statistical packages, inventory management systems, and ad hoc query tools.

Biography Michael has worked in procurement at Walmart for 9 years. He graduated with a degree in Finance from the Kelley School of Business at Indiana University. He is in the Southeast region of the United States. Michael has multiple years of experience in consulting prior to his time at Walmart



Pain Points Two separate interfaces for the two subsidiaries

No access to security KPIs from its vendor

Goals

Get the best products for the right price

Keep their shelves consistently stocked with new and Innovative products

Needs

Easy-to-understand ordering application

Information on companies previous sales

Technological Skills

SAP Fiori

Applications

Mobile

Social Media



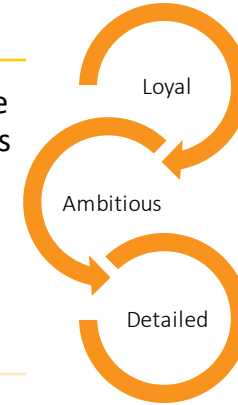
Toyota Raymond Employee Persona – Piper Phillips



Brand Manufacturing Position Summary

Procure and produce products for a handful of companies in the nNorthwest region of the united states. Operations management of suppliers in the region. Main communication point for clients

Biography Piper has worked at this vendor for 5 years. She graduated with a degree in Marketing and Sales from Lehigh University. She is in the Northwest region of the United States. Piper has a few years of experience in consulting prior to her time at the vendor.



Pain Points Two separate interfaces

No communication method between TMH & Raymond employees

Goals

Simple communication with TMH or Raymond employees

Less than 5% of material waste as result of incorrect procurement

Needs

Simple user interface for both brands

Communication platform between all parties

Technological Skills

SAP Fiori

Applications

Mobile

Social Media



Toyota Employee Persona – Joe McCormick

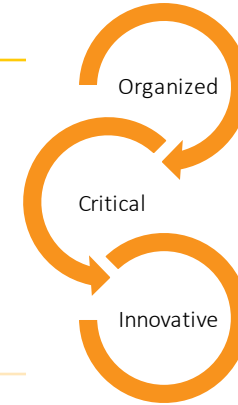


Production Manager Position Summary

Responsible for managing the installation and implementation of the Raymond telemetric solution iWAREHOUSE®. Each project is a collaborative effort between the Project Specialist, Nationwide Sales & Service Centers, multiple internal Raymond personnel, and most importantly our customers.

Biography

Joe has worked for sales at Raymond for 25 years. He graduated with an MBA from TCU and a BA in Finance from the University of Michigan's Ross School of Business. He is in the Northwest region of the United States.



Pain Points

No analytics collectively across both subsidiaries

Unable to share resources and optimize procurement

Deviation from 2B1C thus giving rise to inconsistency

Goals

Design out overburden and inconsistency

Lean Manufacturing

Needs

Up-to-date production requirements

Manufacturing efficiency reports

Technological Skills

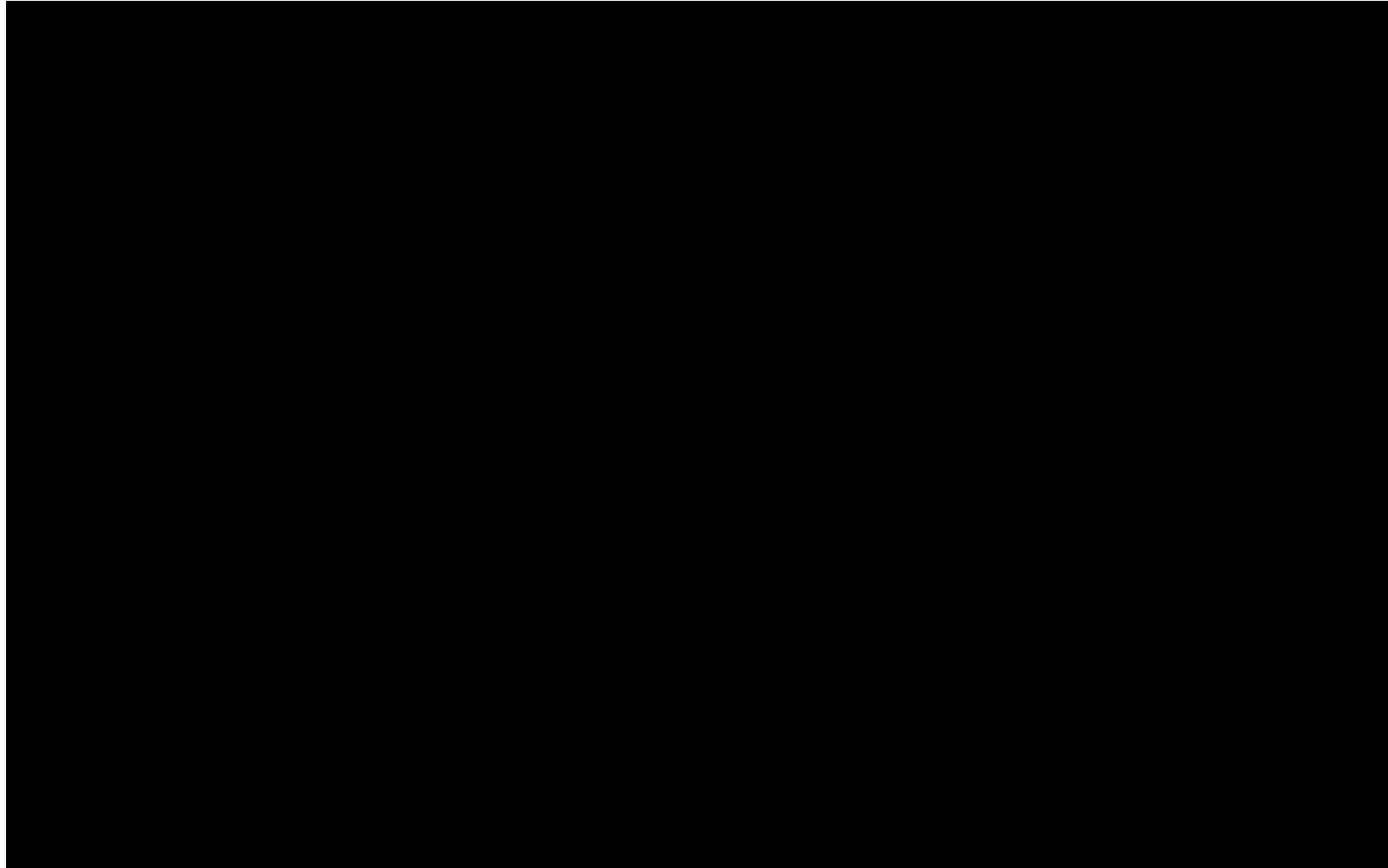
SAP Fiori

Applications

Mobile

Social Media

Video Walk Through – Dealer Portal



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