Building a better working world

Halton ERP Roadmap

Final Report

October 2022

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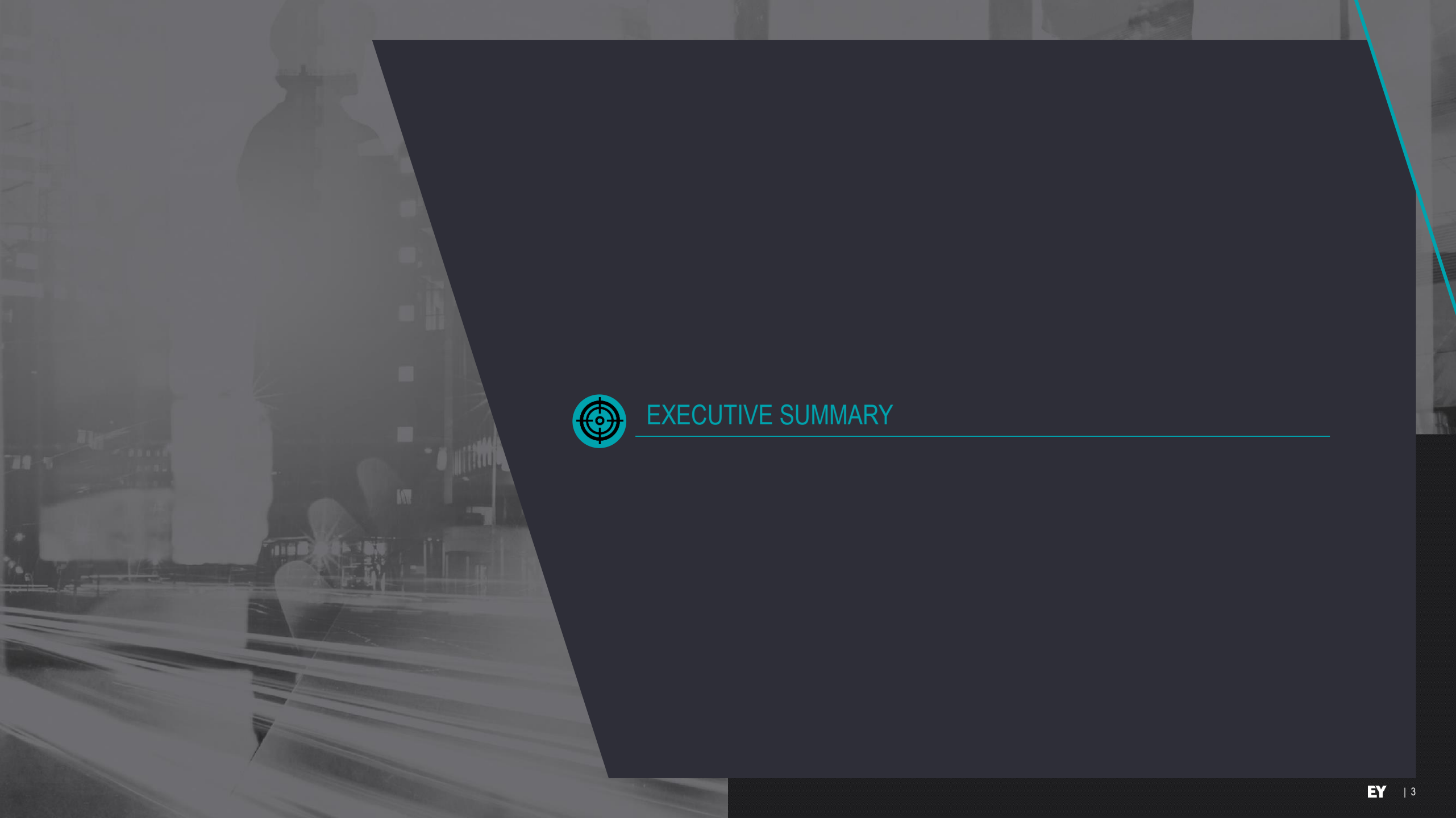


EXECUTIVE SUMMARY

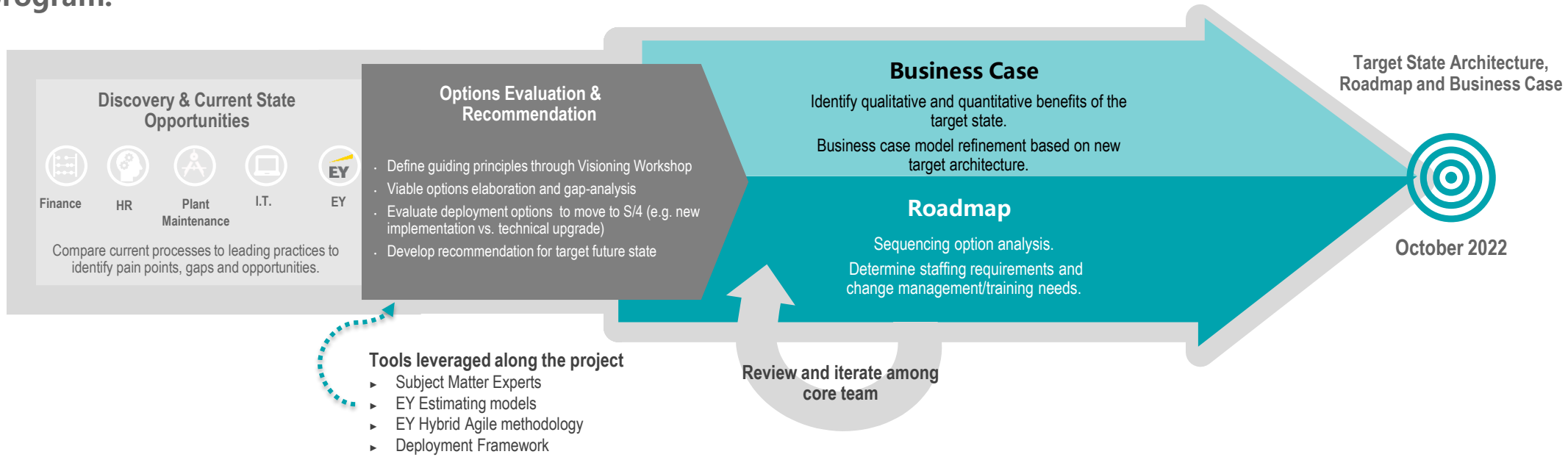
Background

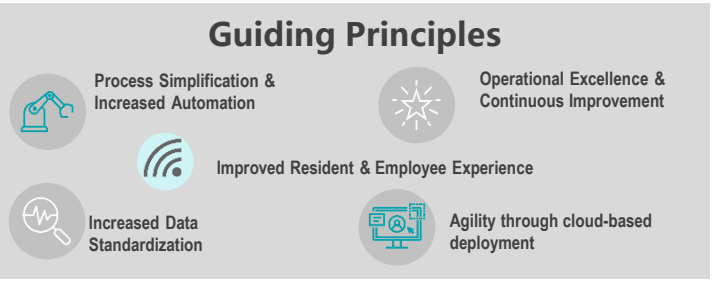
Halton developed a Digital Strategy to achieve the objectives within the Region's 2019-2022 Strategic Business Plan.

- The Digital Strategy provides a framework to align people, processes, data and technology required to achieve digital service transformation. The work focusses on the connection between digital service design, business process improvements, data, business applications and the information technology infrastructure environment.
- The Strategy proposes that Halton Region become a Digital First organization by enhancing its delivery of high-quality online digital services. More specifically the Strategy prepares Halton Region to offer 125 of its most frequently used customer-facing services, and the top 50 internal processes and staff experiences, as complete digital services by 2025.
- **The third workstream of the Digital Strategy, Service and Process Transformation** – shifts Halton Region to a product management approach for Halton Region's major systems and lays out the work plans for its major platforms including SAP Financial and Human Resources System, Hansen Maintenance Management System, Customer Relationship Management System, and POSSE (land development management) systems.
- Key activities in this workstream include a major SAP Transformation Program to modernize and automate Halton Region's Financial and Human Resources processes; a Work and Asset Management systems and process review; as well as an Application Rationalization Program to reduce Halton Region's technology footprint and simplify its environment.
- The Strategy also proposes that Halton Region will need to invest in digital and data education training and focus on hiring for digital aptitude in order to position its internal resources to deliver and continuously build its digital success.
- **This report provides an implementation roadmap and a related business case that supports the realization of the SAP Financial and Human Resources objectives of the third workstream of the Digital Strategy**

Approach and Methodology

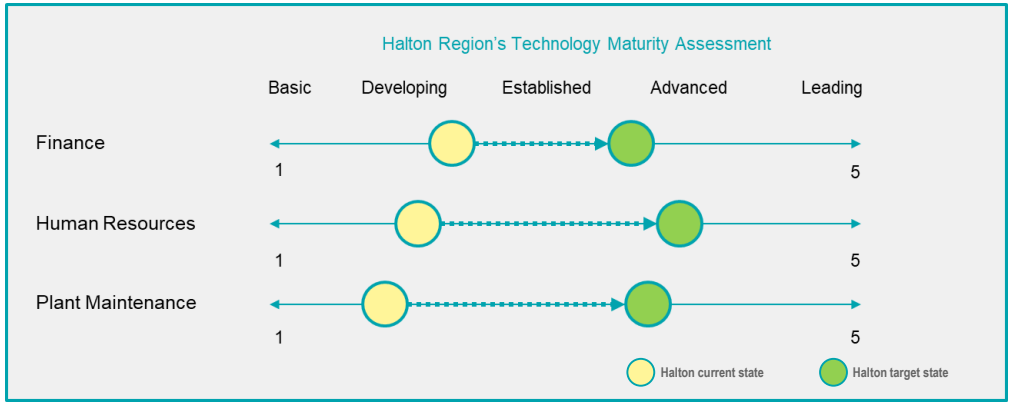
To achieve the desired benefits of the Digital Strategy and Service & Process Transformation objectives, a target architecture and roadmap were developed with a focus to achieve the guiding principles and expected outcomes of the program.





Summary of Key Challenges in Current State

A review of the current state processes highlighted that Halton Region can more effectively utilize modern technology and capabilities for its' People, Money and Assets processes thereby alleviating inefficiencies and pain points within its existing SAP system.



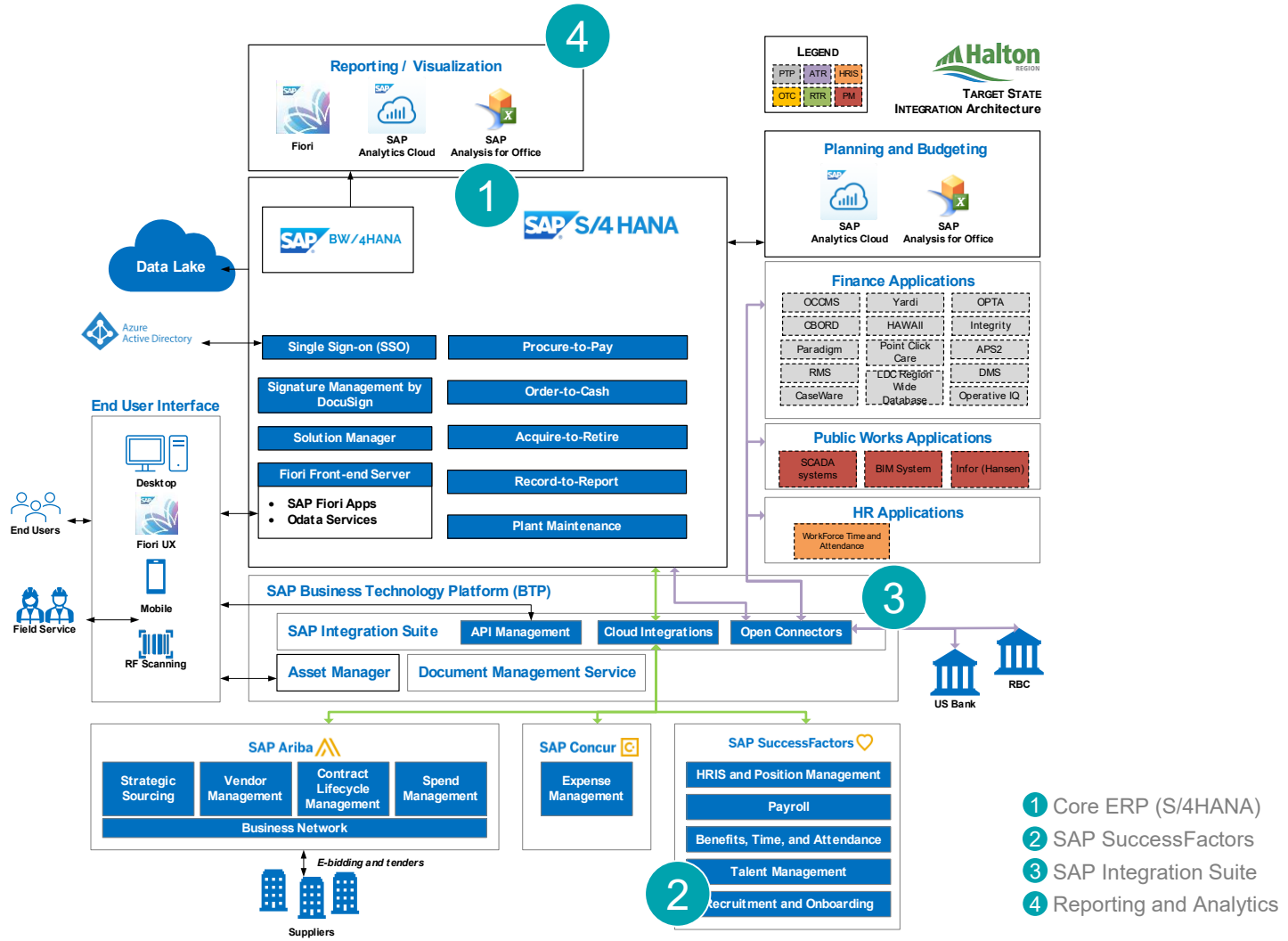
Summary of current key challenges to be addressed in the SAP roadmap

- Multiple manual entries and validations due to limited automation capabilities and redundant processes
- Inconsistency in practices and limited alignment of processes across departments and business units
- Limited access to real-time reporting capabilities and availability of data and insights for decision making
- System integration inefficiencies between multiple systems
- Underutilized ERP functionalities and self-service capabilities leading to a disconnect between business needs and technology functionalities

Target architecture proposed for future state

In an effort to address the key challenges and opportunities for improvement raised in the current state, a target state architecture based on an SAP platform was developed.

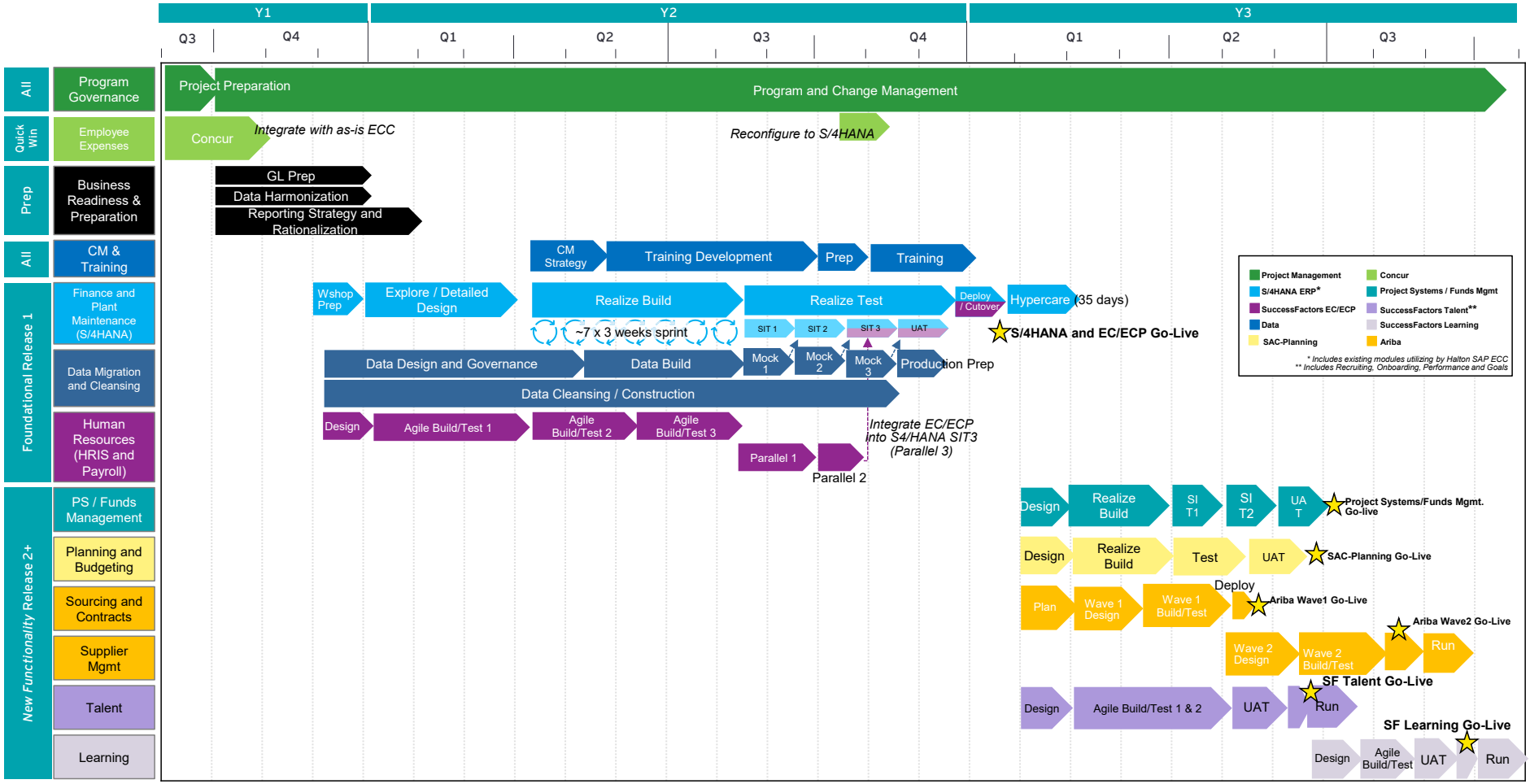
- The target architecture assumes a continued SAP platform (i.e. S/4HANA, SuccessFactors, Ariba and Concur)* deployed in the cloud
- The target state was developed with a view to address the pain points and opportunities identified during the Current State Assessment
- Capabilities that can be enabled through SAP were mapped to modules and sub-modules to determine the target state landscape
- The target architecture is based on SAP Best Practices and utilizes the latest technologies



*Note that non-SAP platforms were not reviewed as a part of this analysis

Proposed Roadmap outlining implementation timing and sequencing

The target architecture provided the basis for the roadmap. Timing, sequencing and staffing decisions were made in order to achieve the target state while managing risk and providing expected benefits.

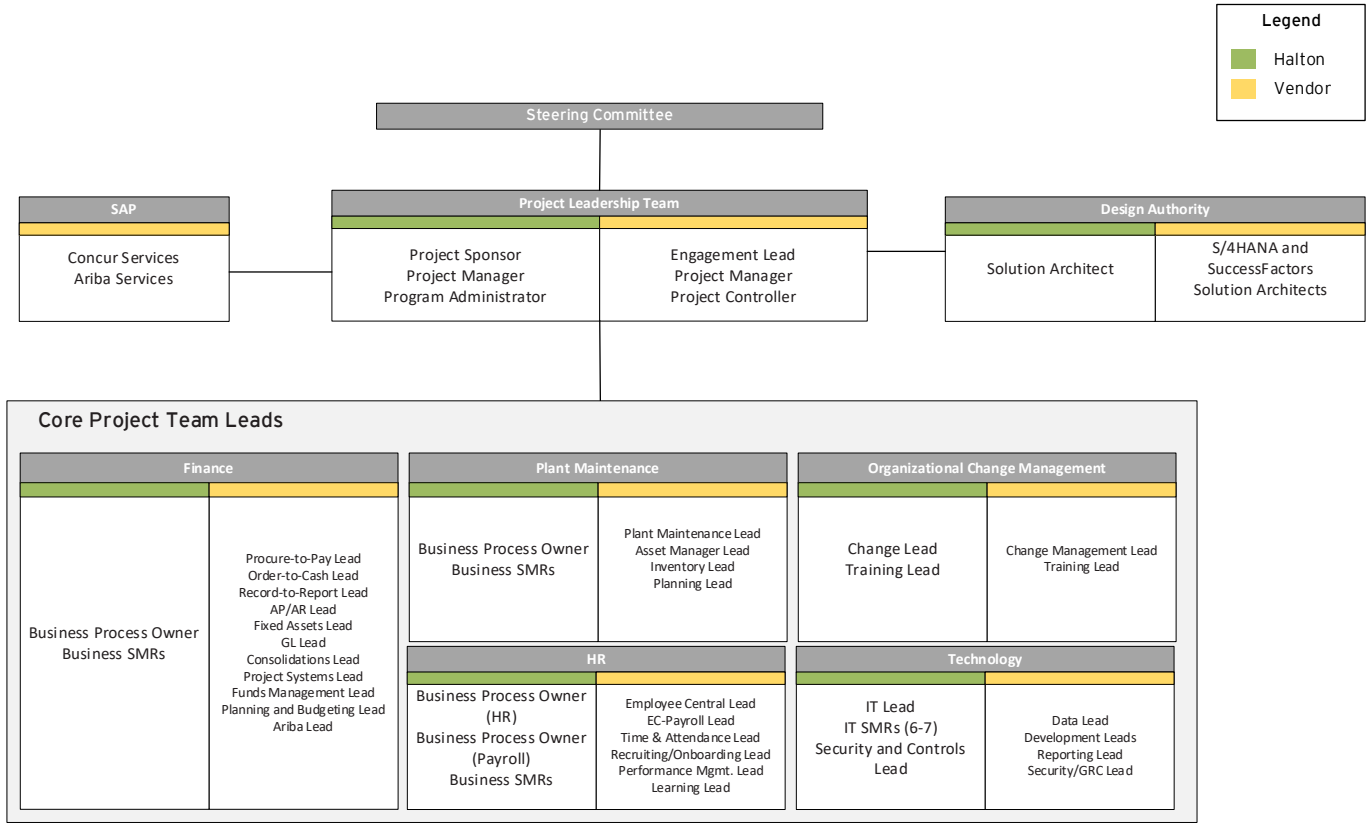


A number of considerations were evaluated across all options while developing the roadmap:

- **Quick hits** such as starting with a Concur rollout first were considered
- **Business readiness** activities to be completed before the start of the implementation (e.g. resourcing, governance and business readiness activities)
- A **phased rollout** was considered so as to avoid overwhelming the organization with change while allowing for **incremental functionality** to be rolled out

Resourcing required to enable the transformation program

A project organization structure required to deliver the transformation and to govern the implementation across the releases was proposed.



The proposed project organization structure is indicative for Halton to execute its ERP transformation roadmap, with **some resources eventually transitioning to the sustainment organization**. Key highlights of the program structure are:

- 2-in-a-box approach for project leads.
- Business Subject Matter Resources (SMRs) that will vary between 10-15 part-time resources depending on their knowledge base.
- Some Business SMRs expected to become near full-time throughout the project to support both the Data and Testing workstreams.
- IT SMRs will be approximately 6-7 full time resources to obtain practical S/4HANA and SuccessFactors experiences and knowledge to support the systems post go-live.

The aim is to implement a form of support that allows for continuous improvement thereby reducing the need for such a transformation program in the future. Some key challenges that will need to be addressed in order to enable this structure and the subsequent sustainment model are:

- Resourcing and retention risk
- Capacity constraints and capability gaps
- Inadequate Documentation and Transition to Sustainment
- Inadequate Governance and Defined Roles/Responsibilities
- Misalignment between IT and Business Areas

Summary of the cost-benefit analysis

Embarking on a transformation program to meet the objectives of the Digital Strategy will provide clear benefits and a means to achieve a steady state supported by a sustainment organization focused on continuous improvement.

Benefit Summary	► Process simplification and increased automation for repetitive tasks and processes will reduce manual effort and allow for a shift to more business value-add activities. ► Increased data standardization and moving towards a more data-centric organization will enable better decision making with data driven insights. ► End users know how to use and support SAP – this allows for an opportunity to build a sustainment organization that allows for continuous improvement. ► Not all processes are being changed - 0ver 60% of the existing Finance and Plant Maintenance processes will be an implementation of existing and familiar functionality. ► 11.5 to 16.5 FTE resource capacity can be released to focus on value added activities.
Cost/ Payback Summary	► The initial assessment is that Halton will have a positive impact on the overall finances with a payback period of 10.7 years. ► The study identified an estimated $25.8million in external costs (software, consulting, training etc.) for the SAP transformation implementation. Ongoing costs reflect SAP licensing as well as the cost of additional resourcing to be included in the CoE. ► The most substantive category of benefits are IT Cost savings where savings can be realized from decommissioning many satellite IT systems and associated costs from the current SAP environment. ► Efficiency savings will result in substantial savings as Region will able to more effectively redeploy resources.

Benefits to be achieved through the transformation

Moving to the target state will allow the Region to develop advanced state maturity that will address key pain points while providing an opportunity to release FTE capacity for more value added activities.

Process Groups: Finance, HR & Plant Maintenance

Process owners:
- **Finance**
- **HR**
- **Plant Maintenance**

Complexity of project: High

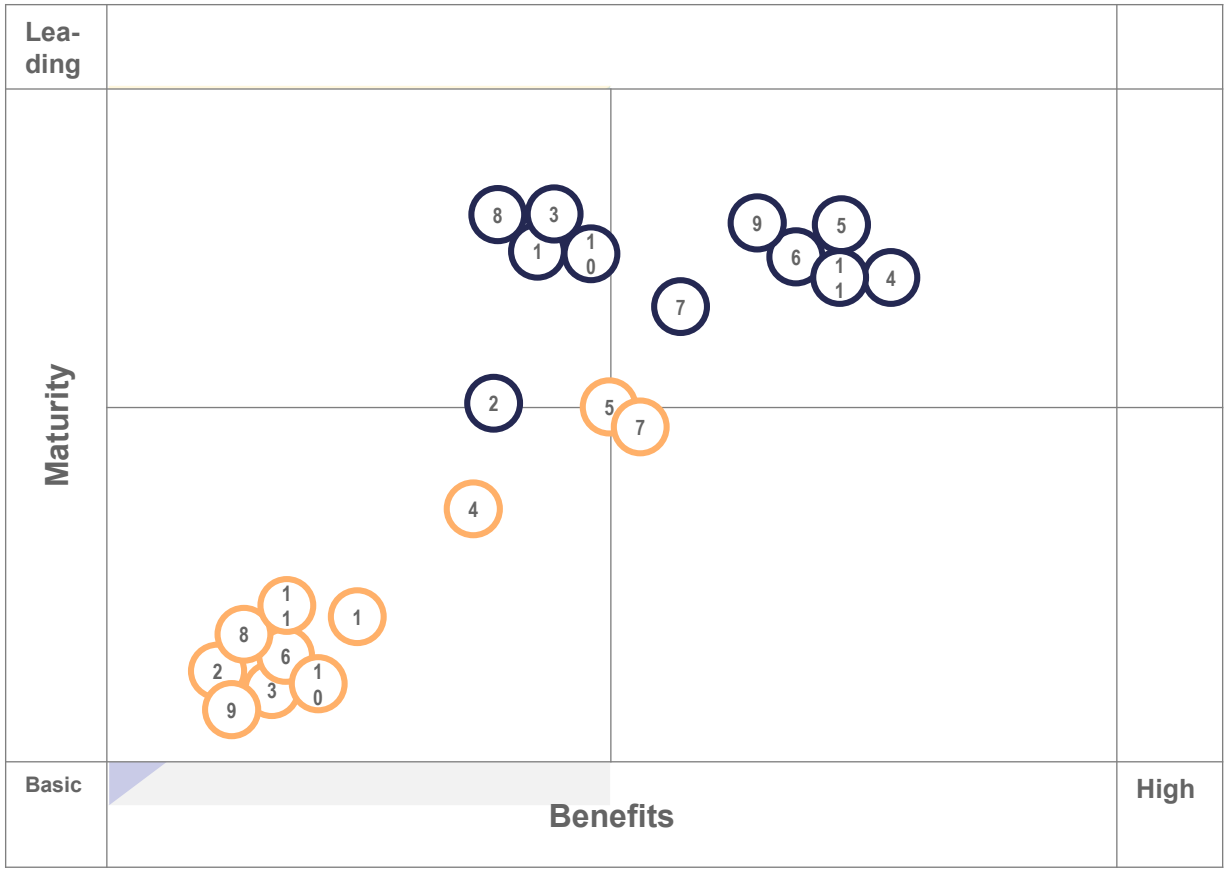
Rationale:
Current Maturity level and processes are low and require substantial manual effort.

Movement of Functional areas:
1 Procure to Pay
2 Order to Cash
3 Acquire to Retire
4 Enterprise Planning
5 Record to Report
6 HRIS and Position Management
7 Payroll
8 Benefits, Time, and Attendance
9 Talent Management
10 Recruiting and Onboarding
11 Manage Plant Maintenance

FTE/Time benefits estimation:
- Agile Workforce: 13% – 18%
- Automation: 15% – 21%
- Data Standardization: 19% – 27%
- Operational Excellence: 17% –24%
- Resident and Employee Experience: 10% – 14%
- Total: 16% – 22%

Value added resource: 11.5 to 16.5 FTEs

Additional qualitative benefits:
- Unlocking of SAP applications to be more utilized.
- Standardizing a number of processes in place and development of Halton Regions maturity model.



Legend: Current State Future State

INTRODUCTION

Introduction
Project Objectives

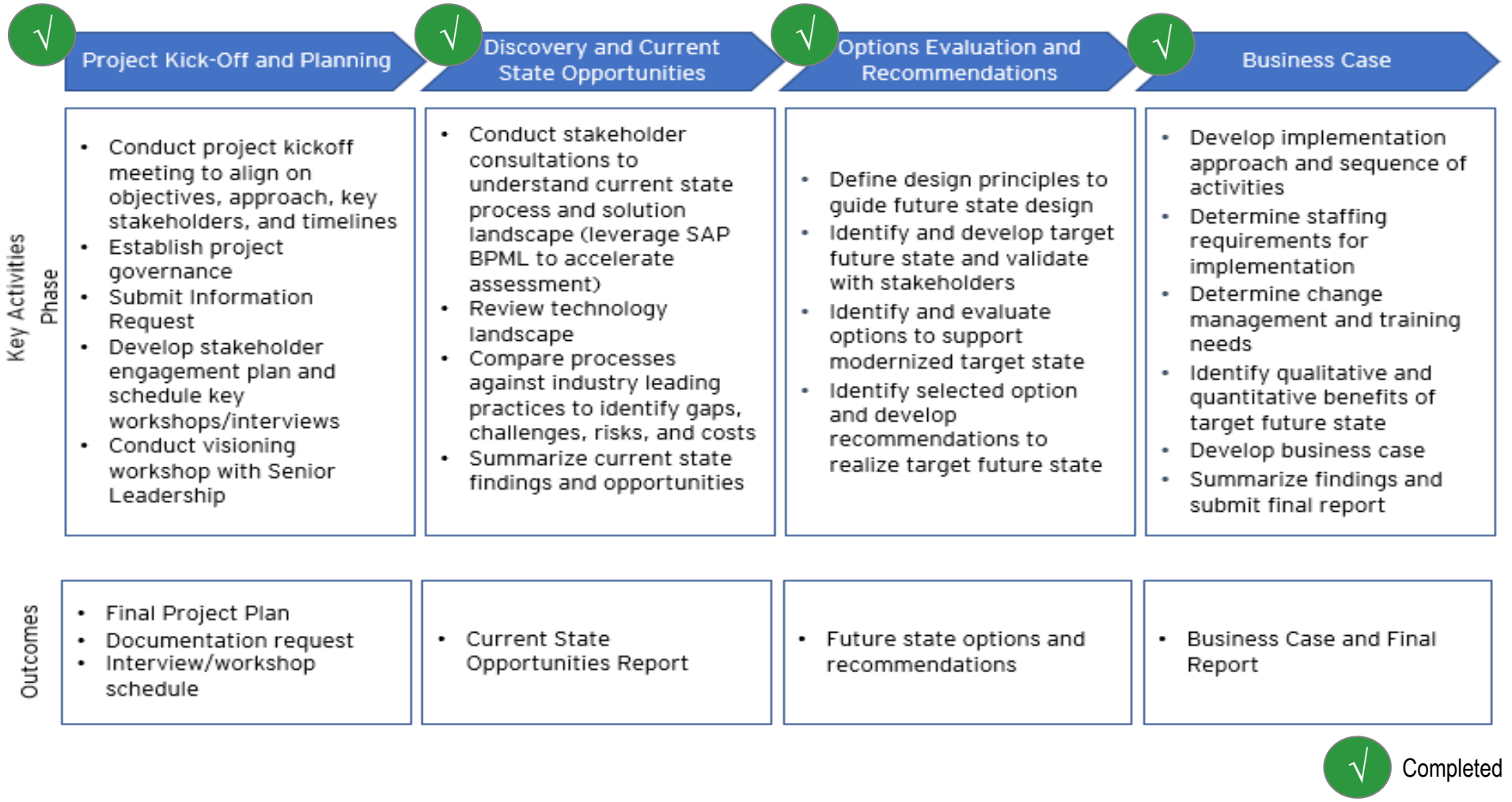
Halton Region engaged EY to conduct an assessment of the Region's People, Money and Assets processes to identify opportunities for modernization. The key project objectives are listed below:

- Develop understanding of high-level business requirements and solutions landscape
- Identify risks and challenges related to the current state
- Evaluate processes against industry leading practices to identify gaps and opportunities
- Identify a target modernized future state and develop and evaluate options to support the future state
- Develop implementation approaches and recommended sequencing of implementation activities
- Identify resourcing and change management needs to support transition to the future state
- Develop a business case to summarize the recommended ERP strategy and roadmap

√ *Components covered in this report*

Introduction
Completion Status of RFP Objectives

The completion status of the objectives laid out in the RFP for this report is illustrated below:



Introduction
Report Overview

Report Purpose

This report is the final report of the Halton ERP Roadmap. It contains the target state architecture with a view of in scope processes; a recommended roadmap outlining sequencing and an implementation plan. It also contains a skills gap assessment of existing staff. A resourcing plan for project delivery and a sustainment Centre of Excellence is also proposed. Finally, a business case identifying the payback is presented as well.

WHAT THIS REPORT CONTAINS….

- Recommended target state architecture
- Resourcing and skills required for project delivery and Centre of Excellence
- Recommended roadmap
- Cost-Benefit Analysis for roadmap to achieve architecture

…AND WHAT IT DOESN'T

- × Re-engineered future state processes
- × Options analysis for a non-SAP platform

APPROACH & METHODOLOGY

Background

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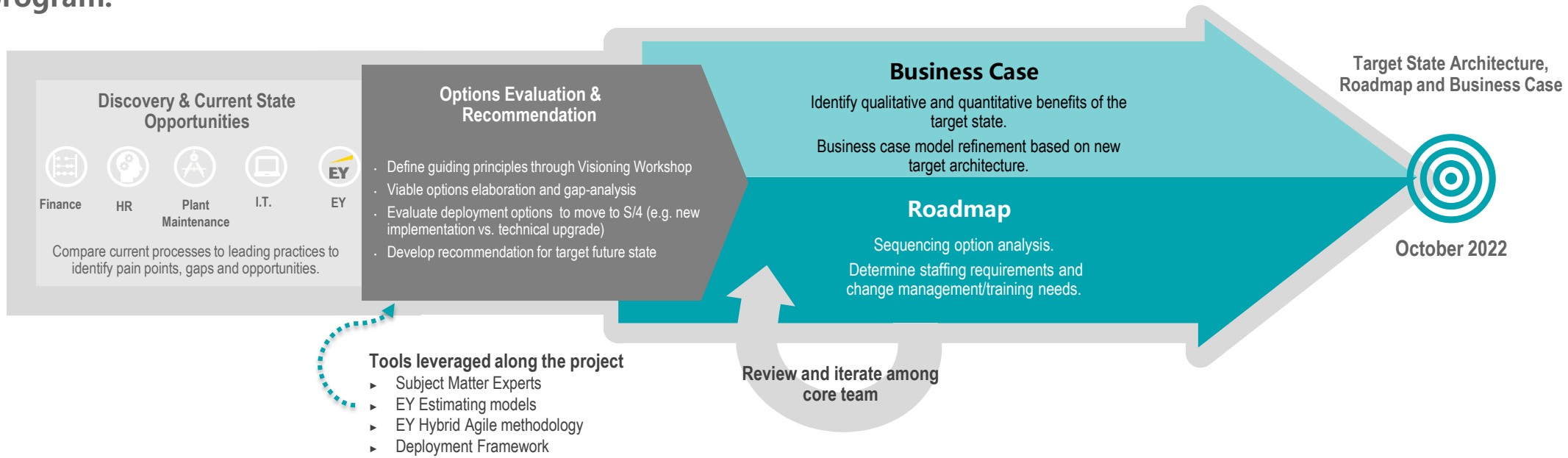
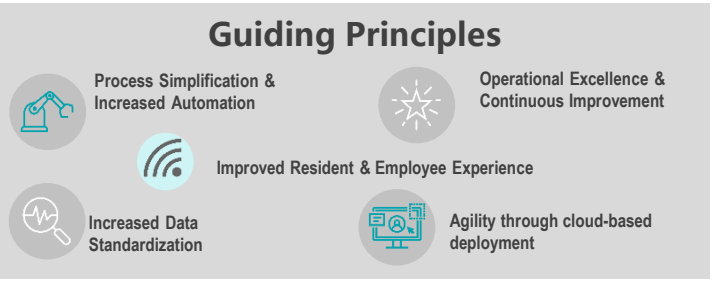
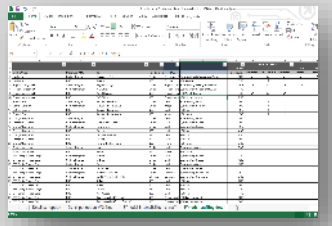




Approach and Methodology
Tools

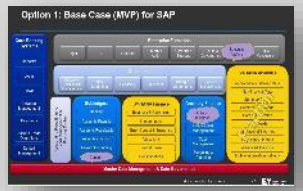
To enable the right fit of the recommended solution, the core team leveraged a proven estimating model, EY subject matter advisors and S/4HANA deployment frameworks.

EY Estimating Models



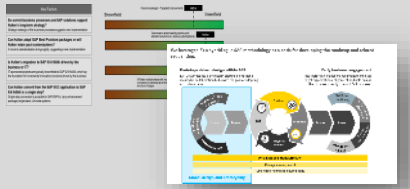
- Proven EY estimating model
- Tailored to Halton Region's roadmap work streams
- Assumptions created in collaboration with EY and Halton
- Quality reviews by independent EY advisors

Industry Knowledge and Subject Matter Advisors



- Inputs from EY subject matter advisors (Finance, HR, Plant Maintenance, Reporting, Data, Architecture)
- Industry Benchmarks
- Technology Maturity Assessment model

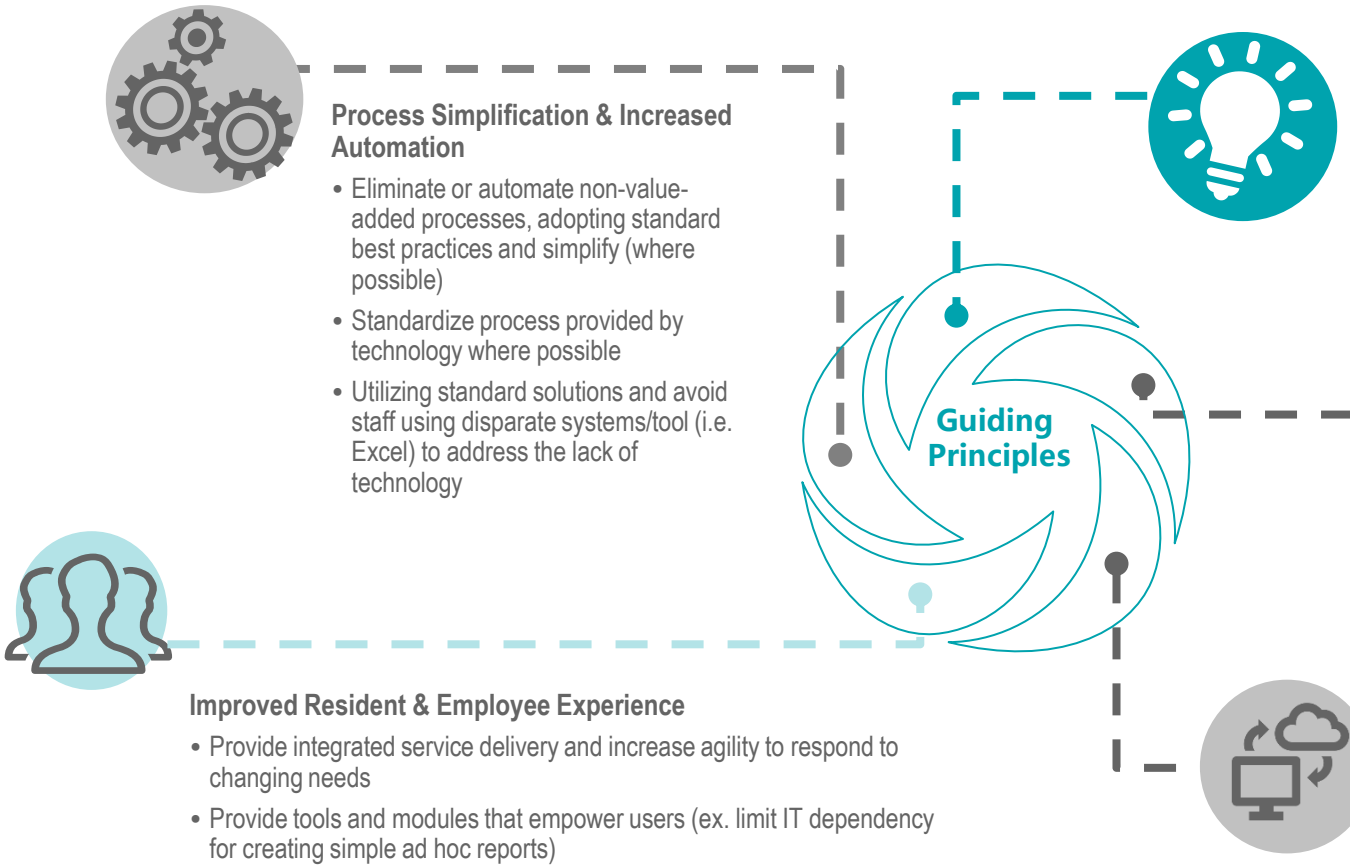
Deployment Framework and Hybrid Agile Methodolgy



- Deployment Framework to assess implementation approach to move from SAP ECC to S/4HANA
- EY Hybrid Agile methodology for implementing ERP systems and cloud-based solutions (i.e. Concur, Ariba, SuccessFactors, SAP Analytics Cloud, etc.)

Approach and Methodology
Guiding Principles

Through a visioning workshop held with the Region's Leadership team, Guiding Principles were developed to align with the objectives of the Digital Strategy and to better sustain the digital transformation.



Process Simplification & Increased Automation

- Eliminate or automate non-value-added processes, adopting standard best practices and simplify (where possible)
- Standardize process provided by technology where possible
- Utilizing standard solutions and avoid staff using disparate systems/tool (i.e. Excel) to address the lack of technology

Operational Excellence & Continuous Improvement

- Optimize business processes and adopt leading practices to create sustainable platform for continuous improvement
- Utilize data and systems to increase the capabilities of maintenance, operations, financial planning for infrastructure decisioning
- Integrate controls, governance, security
- Reduce manual control points to strengthen controls
- Leverage a holistic data security and privacy approach

Increased Data Standardization

- Become a data-centric organization for better decision making with data driven insights
- Have a defined standards for data that is consistent and governed
- Have data available when needed for making decisions

Improved Resident & Employee Experience

- Provide integrated service delivery and increase agility to respond to changing needs
- Provide tools and modules that empower users (ex. limit IT dependency for creating simple ad hoc reports)
- Deploy self-service and enable close collaboration with the business

Agility through cloud-based deployment

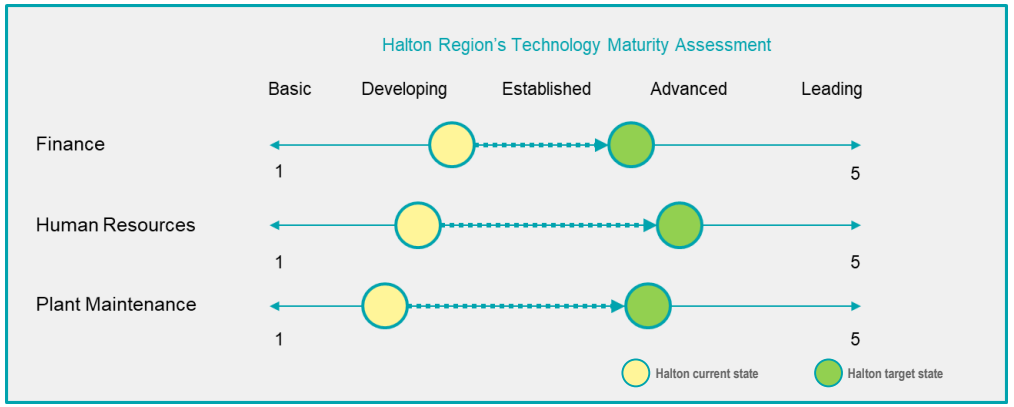
- Flexibility in how employees can access information (i.e. mobile, desktop, etc.) through cloud based deployment and respond in multiple ways to meet customer needs
- Becoming more agile and adopting standard solutions with regular upgrades that adapt to changing technologies and features
- Leverage a cloud first, platform-based architecture (integrated to support processes)

TARGET STATE ARCHITECTECTURE

Target State Architecture
Summary of current key challenges to be addressed

In the Current State Overview Report, it was highlighted that Halton Region has not effectively utilized modern technology and capabilities for its' People, Money and Assets processes resulting in inefficiencies and pain points with its' existing SAP system.

This section of the report focuses on the Target State Architecture that incorporates systems and applications that will support Halton in adopting and realizing leading practices to address key challenges and create value for their customers and employees.



Summary of current key challenges to be addressed in the SAP roadmap

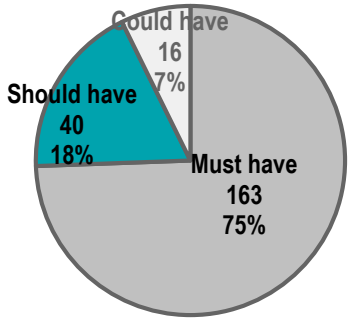
Multiple manual entries and validations due to limited automation capabilities and redundant processes	Inconsistency in practices and limited alignment of processes across departments and business units	Limited access to real-time reporting capabilities and availability of data and insights for decision making	System integration inefficiencies between multiple systems	Underutilized ERP functionalities and self-service capabilities leading to a disconnect between business needs and technology functionalities

Target State Architecture
Summary of pain points

Over 300 pain points were identified during the Current State analysis. In conjunction with Guiding Principles defined in the Visioning Workshop, these pain points were dispositioned according to a MoSCoW analysis.

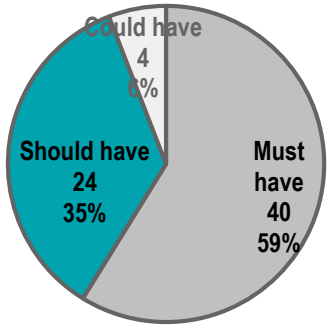
Prioritization	MoSCoW Definition
Must have	A requirement that is foundational to the process area and/or must be satisfied in target state solution to align with leading practices. The requirement must be implemented now in order to set the foundation for achieving Halton's priorities to increase or improve Automation, Data Standardization, Resident and Employee Experience, and Agile Workforce.
Should have	A requirement that is high-priority and aligned with Halton's priorities to be included into the target state solution if possible, without impacting any of the Must Have requirements from realization.
Could have	A requirement that is desirable but is not urgent and/or necessary to achieving Halton's priorities.
Won't have	A requirement that the stakeholders mutually agreed will not be implemented, but may be re-considered in the future. No pain points were identified as Won't have during this dispositioning.

FINANCE



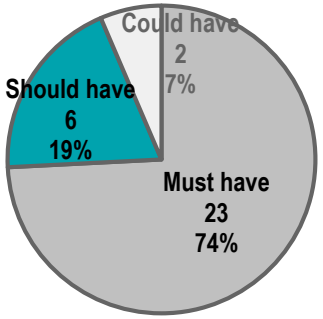
Finance Functional Area	Must have	Should have	Could have	Grand Total
Procure to Pay	51	16	4	71
Order to Cash	23	4	10	37
Acquire to Retire	32	3	1	36
Enterprise Planning	27	5		32
Record to Report	30	12	1	43
Grand Total	**163**	**40**	**16**	**219**

HUMAN RESOURCES



Human Resources Functional Area	Must have	Should have	Could have	Grand Total
HRIS and Position Management	11	5		16
Payroll	10	8	1	19
Benefits, Time, and Attendance	5	3		8
Talent Management	8	3	1	12
Recruiting and Onboarding	6	5	2	13
Grand Total	**40**	**24**	**4**	**68**

PLANT MAINTENANCE



Plant Maintenance Functional Area	Must have	Should have	Could have	Grand Total
Manage Plant Maintenance	23	7	2	32
Grand Total	**23**	**7**	**2**	**32**

Target Architecture
Key pain points across processes

Pain points were summarized across five key categories that included manual processes; consistency; real-time reporting; integration and functionality.

Process Area	Multiple manual entries and validations	Inconsistent practices and limited alignment	Limited access to real-time reporting	System integration inefficiencies	Underutilized ERP functionalities
Finance	• Manual process of receiving, approving and paying Accounts Payable invoices. • Aging Report Analysis is done in Excel. • Details about a Project & their statuses are tracked in multiple systems.	• Bank reconciliation is manual via Excel macros. • Asset depreciation is run only annually. • Two different Charts of Accounts and two Controlling Areas for two different Company Codes.	• Reserve, Accrual & Deferred Revenue information is not available real time. • Key Performance Indicator (KPI) tracking dashboards are prepared manually in Excel. • No tools for project level budget tracking • Inaccurate inventory tracking	• No Integration between SAP Material Management & Asset module. • Lack of direct integration with external systems for Accounts Receivable Invoicing. • No direct integration between SAP and Investment and Debt Management System.	• SAP Bank Reconciliation is not used. • SAP Workflow Functionality is not used. • New General Ledger & Parallel Ledger functionality not used along with Document Splitting.
Human Resources	• Significant manual intervention required in processes. • Offline reconciliation required for payroll processes.	• Lack of standardized processes. • No development planning in place. • Organization structures in different systems are not aligned.	• Lack of employee data reporting capabilities. • Many documents stored on local drives or paper based.	• Limited integration and Data flow between systems.	• Lack of Employee Self-Serve Capabilities. • No dynamic workflows. • Few automated notifications.
Plant Maintenance	• Excel-driven maintenance scheduling. • Manually capturing and uploading labour in the execution of work orders. • Excessive use of forms to execute maintenance operations in the field.	• Limited synchronization between Maintenance and Fixed Asset. • Absence of system-based Health, Safety, Environment (HSE) permits / pre-job assessments before actual execution of work. • Absence of quality management (SAP QM) for MECP task compliance requirements	• Inadequate technical object hierarchies definition. • No definition of Plant Maintenance Bill of Materials (BOMs). • No access to equipment data and information for assets in the field • Lack of Mobile Access to retrieve and save data in the field, resulting in reduced quality and analysis deficiencies	• Limited integration between SAP Plant Maintenance and Material Management. • No integration between SAP SCADA, ESRI, and BIM (Building Information Modeling) systems. • No collection of asset data to support condition and meter based work scheduling	• No use of Equipment Calibration. • No use of Material Resource Planning (MRP) for spare parts replenishment planning.

Target Architecture
Target State Capabilities

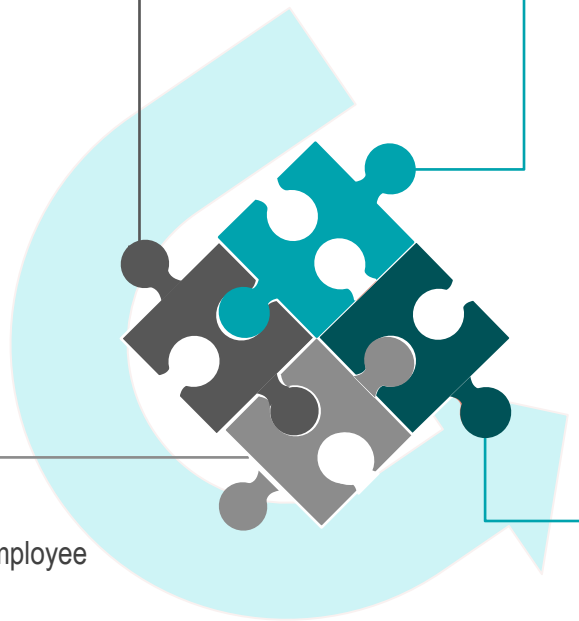
Through an analysis of the pain points gathered during the current state assessment, key functional capabilities needed to drive benefits for the Region were identified. These are highlighted below and were leveraged in the establishment of the target architecture.

Finance

1. Automated, simplified and flexible reporting environment
2. Common and consistent accounting code block
3. New GL functionalities
4. Integrated platform to create and manage budgets, plans and forecasts
5. Robust project accounting system to manage capital assets.*

HR

1. Implementing a central HRIS system that can enable employee self-service
2. Redesign of payroll schema to optimize existing payroll calculation logic
3. Common platform for Talent (including Performance Management and Succession Planning, Recruiting, Onboarding and Learning that is integrated with HRIS



Plant Maintenance

1. Integrated and detailed Material and Bill of Material (BOM) master to increase proactive work efficiency and reduce repair times that impact service level and environmental objectives
2. Capabilities to utilize mobile technologies for management of assets in the field
3. Accurate inventory system to track and manage parts with RF handheld devices
4. Ability to track safety measures when performing inspections, repairs, or preventive maintenance work
5. To increase asset reliability by integrating real-time asset condition data with work scheduling, enable Condition based maintenance.

Reporting

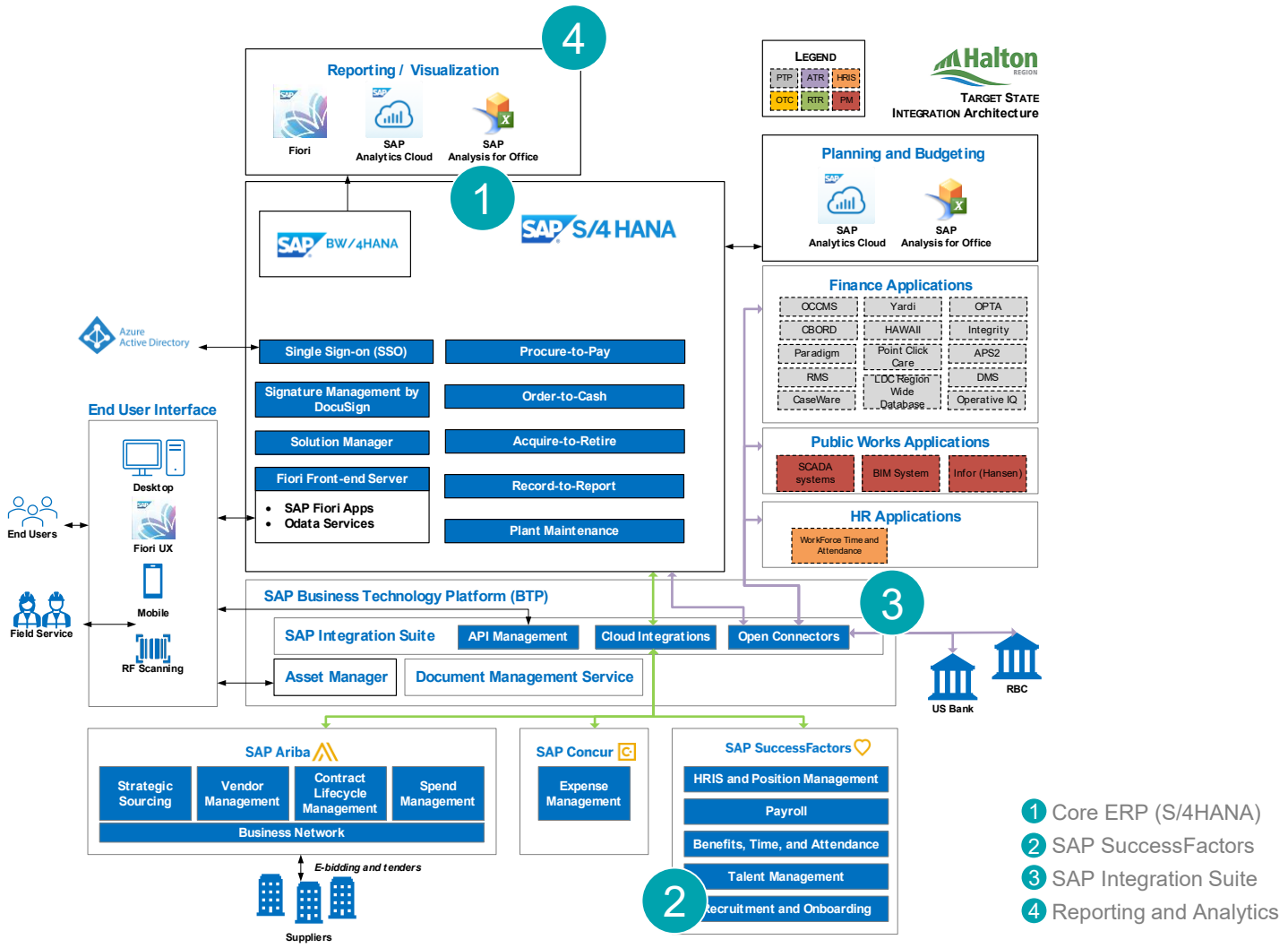
1. Utilizing latest predictive analytics and KPIs to get better insights into operations and Finance
2. Increase utilization and performance of data warehouse (i.e. SAP Business Warehouse or alternative)
3. Escalate abnormal asset conditions in real-time to maintenance to avoid full or partial functional failures

* Engineering & Construction was not reviewed as a process. Integration requirements to/from Finance would need to be further examined during detailed design.

Target Architecture
Overview

Pain points, opportunities for improvement and capabilities required to drive benefits were mapped to functionality available in the SAP S/4HANA, SuccessFactors and Ariba platforms.

- The target architecture assumes continuing on an SAP platform (i.e. S/4HANA, SuccessFactors)* deployed in the cloud
- The target state was developed with a view to address the pain points and opportunities identified during the Current State Assessment
- Capabilities that can be enabled through SAP were mapped to modules and sub-modules to determine the target state landscape
- The target architecture is based on SAP Best Practices and utilizes the latest technologies such as SAP Integration Suite, Business Technology Platform (BTP), Fiori, etc.



*Note that non-SAP platforms were not reviewed as a part of this analysis

Target Architecture
Functionalities proposed for Finance and Plant Maintenance

The functional capabilities were summarized and mapped onto SAP modules as follows:

Functional Area	SAP module/sub-module		Objective
Procure-to-pay (SAP S/4HANA)	• Business Partner (Supplier) • Purchase Requisition Processing • Purchase Order Processing	• Accounts Payable • Bank Accounting • Inventory Management • Warehouse Management	End to end procure to pay process within one source system with better integration to different modules like asset accounting, Inventory, and Warehouse Management. Will help with workflows required at various stages of the process. Better Integration with Banking to have real time information on payments & cheque encashment.
Procure-to-pay (SAP Ariba)	• Strategic Sourcing • Vendor Performance Management • Contract Lifecycle Management	• Spend Management • Business Network	Better Vendor Performance Management with access to all past and critical information regarding vendor in one system. To plan in advance contract renewals and will help in better price negotiation or other service improvement opportunities.
Order-to-Cash (SAP S/4HANA)	• Business Partner (Customer) • Billing • Order Processing	• Accounts Receivable • Collections and Dunning • Bank Accounting	To help with timely billing & collections from Customers, reducing the outstanding Receivables. Real Time integration will help with auto posting of collections and clearing of invoices. Outstanding receivables can be systematically tracked using Dunning Functionality.
Acquire-to-Retire (SAP S/4HANA)	• Asset Accounting • Asset Manager	• Project Systems	To have better integration between various projects and Assets along with proper classification of costs & capitalization value
Record-to-Report (SAP S/4HANA)	• General Ledger • Intercompany processing • Accruals • Profit/Cost Centre Accounting	• Funds Management • Allocations/Chargebacks • Group Reporting	To have real time financials with better integration with all the sub-modules. Help with reporting & analytics needed for various managerial decisions. Automation of functionalities to track budget & spend. Better allocation of expenses
Enterprise Planning (SAP Analytics Cloud)	• SAP Analytics Cloud for planning		To have an integrated application across all departments to support planning, budgeting, forecasting and reporting.
Plant Maintenance (SAP S/4HANA and Asset Manager)	• Materials Management • Inventory Management • Warehouse Management	• Plant Maintenance • Quality Management • Asset Manager	To collect and analyse data to improve asset reliability, maintainability and lifecycle costs. To plan, execute and control proactive and reactive work in the water, and wastewater treatment plants.

Proposed Target State Architecture
Functionalities proposed for Human Resources

The functional capabilities were summarized and mapped onto SAP modules as follows:

Functional Area	SAP module/sub-module		Objective
Employee Central	• HR Administration • Org Structure • Hiring People	• Compensation Budget • Action and Events • Position Management	Core HR within Employee Central will streamline all HR related tasks with position control and workflows will ensure seamless Hire to Retire transactions in a cloud system. Integrations with other modules including Payroll, Recruiting, Onboarding, Learning and Performance Management. Dynamic Sync between Employee and Position ensures data validity and integrity at all times
Employee Central Payroll	• Payroll Control Center • Pre Payroll Monitor • Production Runs	• Post Payroll • Offcycle • Periodical Updates	Employee Central Payroll to offer optimized payroll experience with revamped payroll schema, integrated to Employee Central and Workforce Time and Attendance. Pre-build mashup screens to access payroll forms from within Employee Central offering seamless navigation between the two systems
Benefits, Time & Attendance	• EC Benefits • EC Time Off • EC Timesheet	• Workforce Time & Attendance • Collections and Dunning • Bank Accounting	Employee Central Global Benefits to offer one window operation from within Employee Central for ESS and MSS transactions for enrollment, updates and termination of benefits. Employee Central Time Off to replace CATS for in house time management (i.e.. vacation, sick time, etc.) while Workforce Time and Attendance to continue for all hourly work tracking while integrated to Employee Central Payroll
Talent Management	• Goals • Performance	• Development • Succession	To place a system of record for goal setting, continuous feedback, performance appraisal, succession, development plan and career path all under one platform for a seamless user experience
Recruitment and Onboarding	• Recruitment Management • Onboarding	• Offboarding • DocuSign	Building on the current implementation of EC recruiting and onboarding, to fully integrated the system to align the process starting from Position creation in EC, sourcing and hiring candidates, a user friendly Onboarding experience to termination/retirement and offboarding

Target Architecture
SAP integration with other applications

The following table depicts the non-SAP applications that will be integrated with SAP via the SAP Integration Suite:

Process Area	System / Application	Objective	Direction	Data object(s)	Proposed Interface Type	Frequency
Finance	Yardi	• Tenant & Property Management system by HCHC	Inbound	Accounting Doc	IDOC	Daily
	OCCMS	• Child Care Invoicing	Inbound	Accounting Doc	IDOC	Daily
	CBORD	• Some of the Framework Orders are received by CBORD & integrated to SAP (Long Term Care)	Inbound Outbound	Accounting Doc Customer Master	IDOC	Daily
	HAWAII	• SQL Database used for Property Tax • Simulations and develop rates for next year property tax. • Halton Tax Policy team can use for specific purpose related to property tax	Inbound	Data for Analytics in SAC	Batch	Monthly
	OPTA	• Ontario Province tool used by all the external municipalities for Property Tax Simulations and develop rates for next year property tax. Mandated by Regulations	No Interface			
	Integrity	• New Software for Investment Management	Inbound Outbound	Accounting Doc	IDOC	Daily
	Paradigm	• System used by Waste Management for Customer Invoices & Receivables	Inbound	Accounting Doc	IDOC	Daily
	RMS	• Retail Management Solutions	No Interface			
	Point Click Care	• Point Click Care (PCC) is a Long Term Care Information System to manage clinical and financial information.	Inbound	Accounting Doc	IDOC	Daily

Target Architecture
SAP integration with other applications

The following table depicts the non-SAP applications that will be integrated with SAP via the SAP Integration Suite:

Process Area	System / Application	Objective	Direction	Data object(s)	Proposed Interface Type	Frequency
Finance	LDC Region Wide Database	• To store all water billing data from 4 LDCs (hydros) for revenue reconciliation and bill inquiry	Inbound	Accounting Doc	IDOC	Daily
	DMS	• Home grown application for tracking all Debentures such as installment and sinking funds.	Inbound	Accounting Doc	IDOC	Monthly
	CaseWare	• To provide Financial Reporting for the Province.	Outbound	Accounting Doc	IDOC	Monthly
	Operative IQ	• Inventory management solution for paramedics and some clinic supplies	Inbound	Stock Data Material Master	IDOC	Near real-time
HR	WorkForce Time and Attendance	• To capture Time off and timesheet data to send to payroll system	Inbound	Time	API	Daily
Plant Maintenance	SCADA	• A control system comprising computers, networked data communications and alarm handling for high-level supervision of machines and processes.	Inbound	Measuring Points Maintenance Notifications	API	Near real-time
	GIS	• Geographic information system to capture geospatial data of an asset	Inbound	Equipment	API	Near real-time
	BIM	• A software used to plan, design, construct, operate and maintain buildings and diverse physical infrastructures.	Inbound Outbound	Equipment Material Master Functional Location	API	Near real-time
	Infor (Hansen)	• A work order management system for Public Works containing master data for meters and time sheet/invoices	Inbound Outbound	Equipment Work Orders Material Master	IDOC	Daily

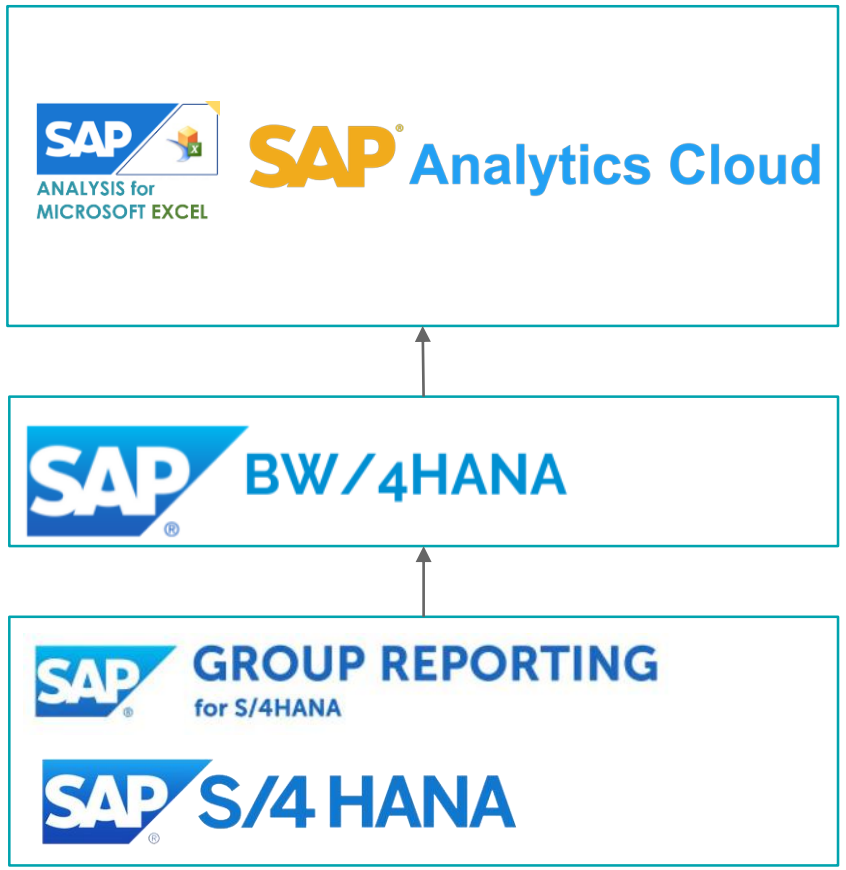
Target Architecture
Recommended SAP Reporting and Analytics Solution

The recommended target state analytics architecture leverages SAP based componentry, providing Halton with a simplification, standardized automation via SAP integration and a single source that avoids duplication of master data and transaction data through the consolidation process.

Front-End Report + Planning

SAP Data Warehouse

ERP Transactional Systems + Financial Consolidation



- **SAP Analytics Cloud for Enterprise Analytics:** Visualize data and leverage the power of BI, and augmented analytics.
- **SAP Analysis for Office:** Enable self service reporting with pivot table like capabilities connected to live data from S/4HANA or BW/4HANA. Ease change management by introducing an Excel based tool that will be familiar with end-users (i.e. Finance).

- **BW/4HANA:** Utilize standard extractors provided by SAP (SD, FI, CO, PM, Master Data) with mix modelling scenarios that enable real-time reporting for requirements that cannot be met through standard SAP reports. This is not intended to replace an enterprise data lake but would need to be part of an overall enterprise reporting architecture and strategy.

- **SAP Group Reporting:** Activate instant integration with S/4HANA General Ledger that will avoid duplication of master data and transaction data through the consolidation process. Enable seamless integration with SAC for planning (SAC-P) to consolidate budgets & forecasts
- **S/4HANA Embedded Analytics:** Utilize investment of S/4HANA with standard real-time reports and analytics without leaving the S/4HANA application.

ROADMAP

Roadmap
Overview

The target architecture provided the basis for the roadmap. Timing, sequencing and staffing decisions were made in order to achieve the target state while managing the risk and providing expected benefits.

- The Digital Strategy proposes that the top 50 internal processes and staff experiences be complete digital services by 2025. This timeline informed the sequencing and timing of the roadmap.
- Deployment options were evaluated and informed the implementation approach of the roadmap.
- Prioritization of pain points informed the scope and sequencing of the roadmap.
- EY's Hybrid Agile ERP methodology was used as the basis for developing the roadmap and related sequencing.
- The scope of Release 1 included considerations to minimize re-work and re-implementation efforts.
- The timing of Release 1 also factored in a go live at the start of a new fiscal year to ease the transition in both Finance and Payroll.
- Including architecture to reduce risk during system changeover to minimize potential failure related to making simultaneous module changes.
- With the above input, a program roadmap was developed with multiple releases:
    - Release 1 is a foundational release that focuses on the technical migration to and implementation of SAP S/4HANA (mostly lift-and-shift existing modules) and SuccessFactors Employee Central (Employee Master and Org Mgmt), Payroll, Benefits, and Time and attendance.
    - Release 2+ focuses on the implementation of new functionalities and modules that do not exist today (i.e. Project Systems, Funds Management, Quality Management, Planning, Contract & Supplier Management, Talent) including lift-and-shift of SF Recruiting and Learning.

Roadmap
Deployment Evaluation Framework

Based on a Deployment Evaluation framework a greenfield implementation for Halton Region to transition to S/4HANA was determined. This would allow for benefits from the redesign of current People, Money and Assets processes to align with Halton's Digital Strategy.

- EY's Deployment Evaluation Framework was used to assess the current state pain points and opportunities, in combination with our understanding of Halton Region's overall Digital Strategy and Vision. Results indicated that a greenfield deployment approach should be considered for majority of the business processes.
- The evaluation focused on the system and process pain points and opportunities collected during the current state opportunities assessment with Halton stakeholders
- The deployment options are applicable primarily in the context of the core ERP (SAP ECC), as new applications in the target state are automatically considered "greenfield"
- Based on the number of process changes and improvements, and data standardization that Halton can realize through the transition to S/4HANA, it was determined that a greenfield deployment will maximize the benefits and reduce the total cost

Roadmap
Deployment Evaluation – Key Factors

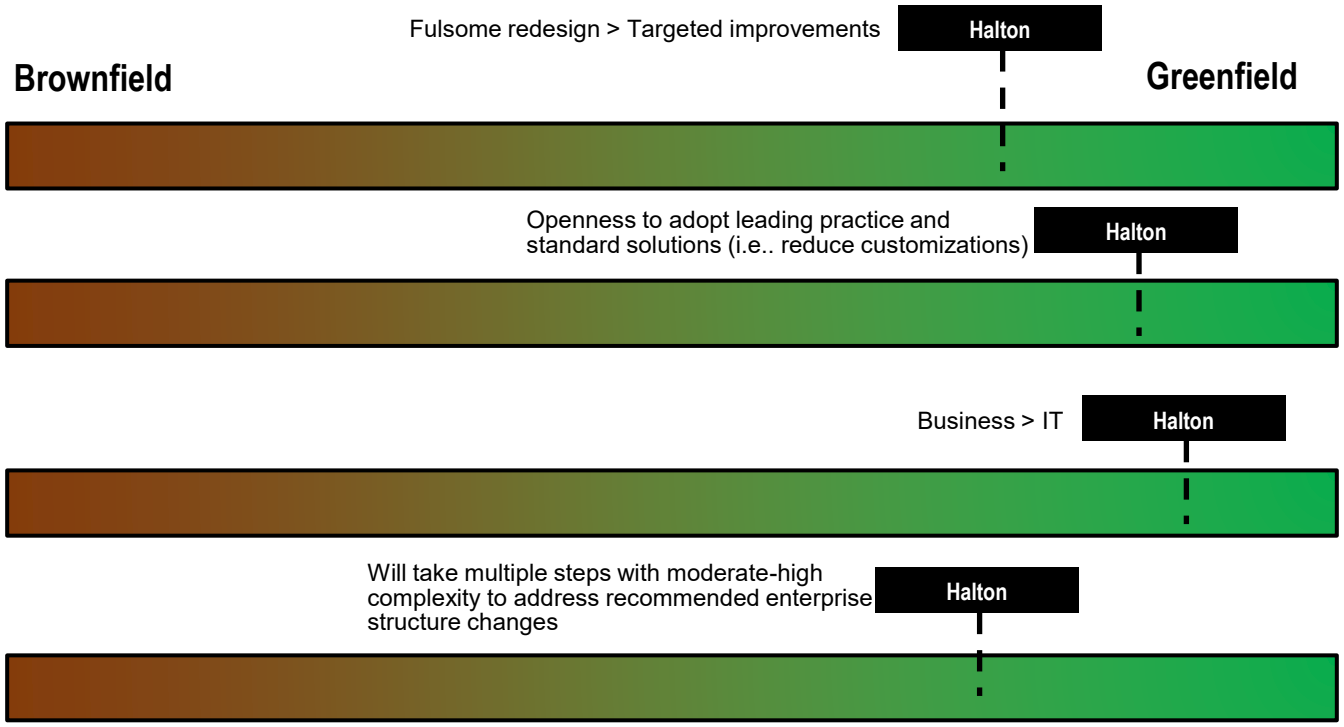
There were several major factors for evaluating whether to utilize a brownfield vs. greenfield approach for Halton Region. The following key factors were assessed based on EY's understanding of Halton's overall Digital Strategy, Visioning and the pain points.

Brownfield vs. **Greenfield**

The key factor assessed leans towards a technical system conversion from SAP ECC to SAP S/4HANA and the existing processes, configuration, data, and custom developments remain largely unchanged

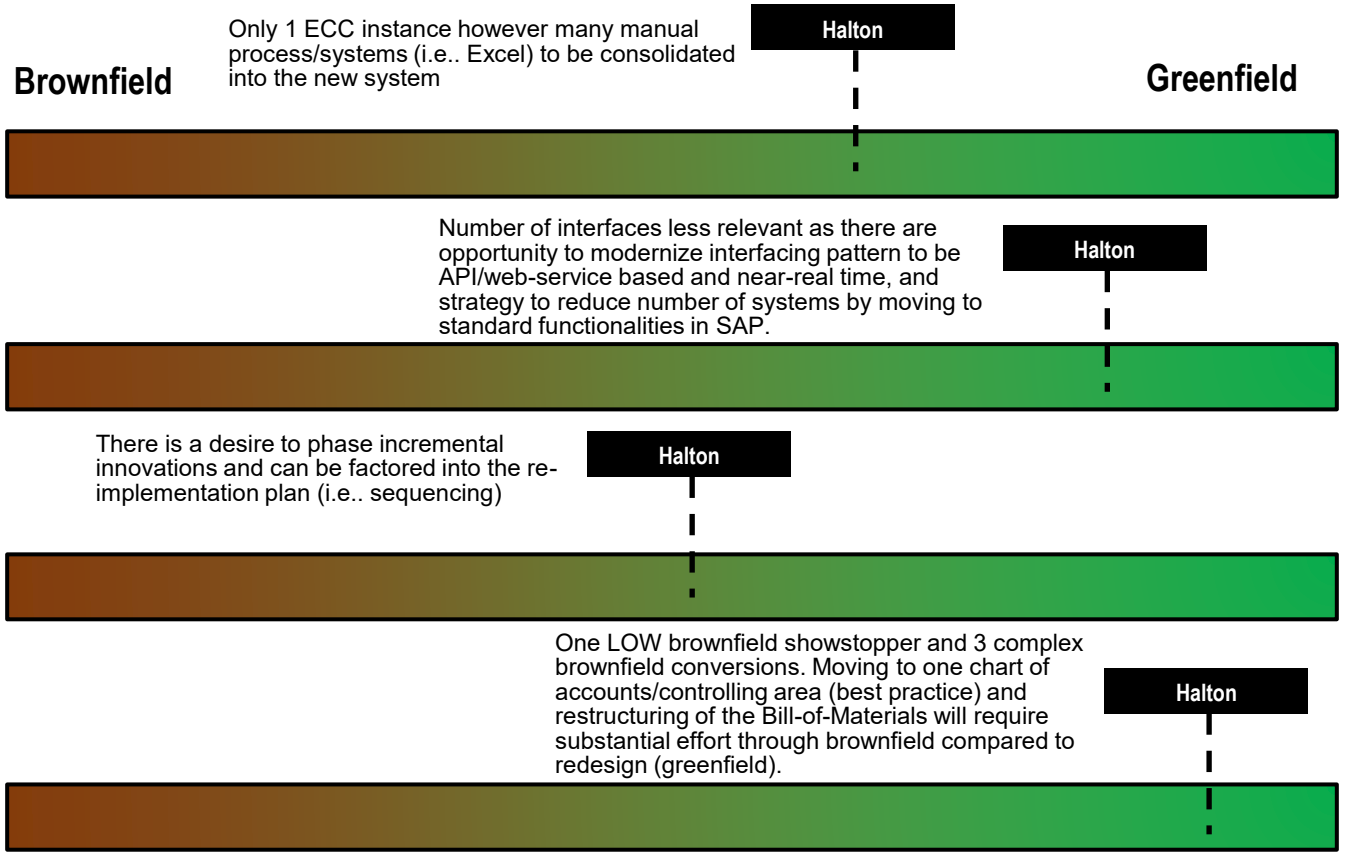
The key factor assessed leans towards having greater business outcomes from processes redesigned, built, and deployed according to SAP leading practices and solution.

Key Factors
Do current business processes and SAP solutions support Halton's long-term strategy? *Strategic redesign of the business processes suggest a new implementation*
Can Halton adopt SAP Best Practices packages or will Halton retain past customizations? *A move to standardization brings agility, suggesting a new implementation*
Is Halton's migration to SAP S/4HANA driven by the business or IT? *IT-sponsored projects are typically brownfields to SAP S/4HANA, which lay the foundation for incremental innovation provisions driven by the business*
Can Halton convert from the SAP ECC application to SAP S/4HANA in a single step? *Single-step conversion is possible for SAP ERP 6.x (any enhancement package)*



Roadmap
Deployment Evaluation – Key Factors

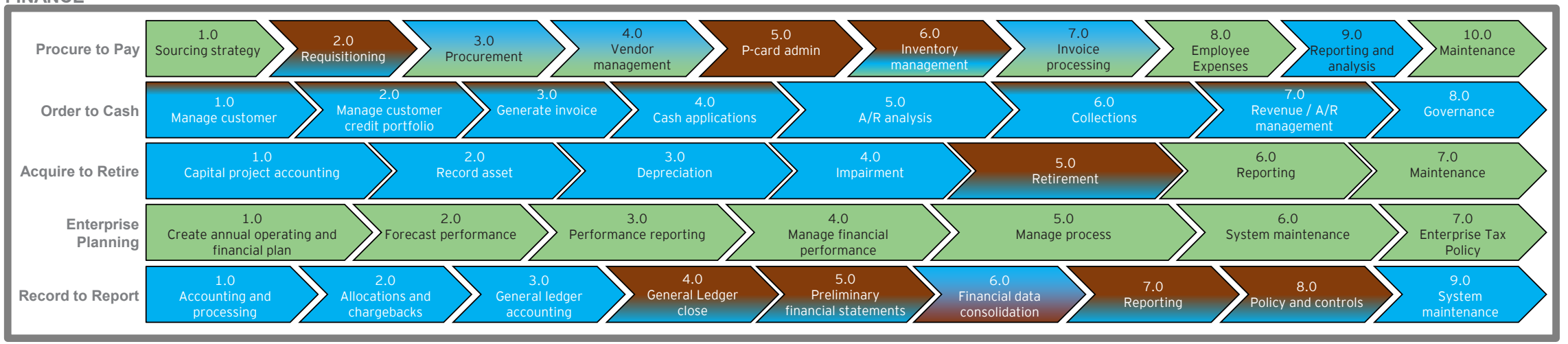
Key Factors
Are landscape consolidation and process harmonization key value drivers? *Consider a new implementation and consolidate the required configuration and data into that new system.*
Does Halton have a high or low number of interfaces to other systems (SAP and third-party)? *The higher the number of interfaces, the stronger the case for brownfield.*
Can Halton sustain a multiyear innovation plan with incremental innovations? *If incremental innovation is part of Halton's philosophy, a brownfield implementation followed by innovative projects will lead to the desired outcome. If you are uncertain whether a multiyear innovation plan can be sustained, a new installation is the only chance to harvest the full value.*
Does Halton's core process and solution pain points and limitations require a new, greenfield implementation to resolve? *Consider a greenfield implementation if major system pain points and system limitations can only be addressed through a new SAP implementation*



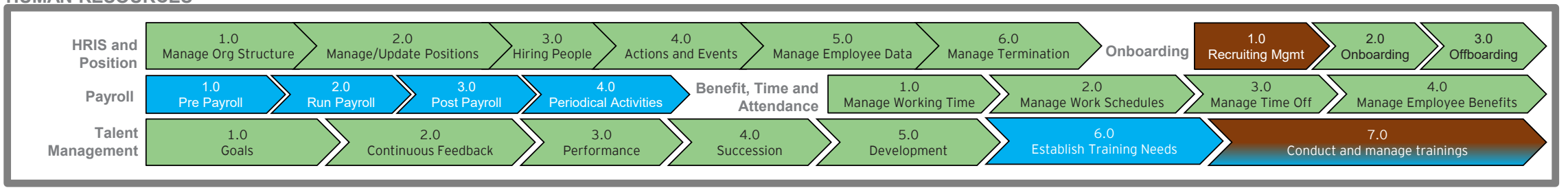
Roadmap
Sub-processes that will be lift-and-shift vs. new or re-implementation

To achieve the target state system improvements, we assessed each business process on how much change was anticipated as the processes were moved to the new S/4 HANA environment.

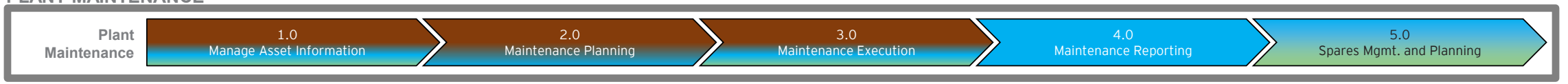
FINANCE



HUMAN RESOURCES



PLANT MAINTENANCE



New implementation — Implementing a new application/module that Halton currently does not use

Re-implementation — Re-implementing and/or re-designing the process to align with standard leading practices and to address pain points

Lift-and-shift — Lift-and-shift current configuration into new system with minimal to no changes to current process

Roadmap
Deployment Options

The deployment options outlined below are applicable to the core ERP (SAP ECC) Finance and Plant Maintenance processes and functionalities that exist in current state.

New cloud applications (i.e. SAP SuccessFactors, SAP Analytic Cloud, Concur, etc.) would be by default greenfield (i.e. new implementation) as they do not exist today.

For SAP S/4HANA, on-premise was investigated and not pursued as an option given the direction of the Digital Strategy to move to the cloud and the SAP product roadmap.

⚠ **Recommended option for the Region**

Option 1: Deploy SAP S/4HANA for Halton as Greenfield Implementation

PROS	CONS
• Enabler for business transformation • Forces re-designing and streamlining of processes, where applicable • Forces data cleansing • Flexible to innovate and standardize • Flexible implementation plan by phasing • Lower TCO	• High effort required for data cleansing and challenges • Change fatigue and resistance (heavy change management and training) • Data archiving and access/reporting to historical data • Requiring higher level of Halton resources • Higher implementation cost

Option 2: Brownfield Migration of existing SAP ECC to SAP S/4HANA for Halton

PROS	CONS
• Less organizational change impact • Transactional data remains • Lower number of Halton resources required • Lower implementation cost	• Existing data challenges may continue to persist without a major data transformation • Tendency for business to remain the same • Does not align to Halton vision and Digital Strategy initiative • Opportunities that are “Brownfield showstoppers” can become costly and complex to implement

Roadmap
A Greenfield Deployment Approach for Halton

A greenfield deployment approach means starting from a “clean slate” and designing all the processes that are needed for the target state system according to SAP leading practices. This includes migrating cleansed and active master data, and open transactions/balances into the new system. This deployment approach focuses on process definition first before the technical work, with significant change management required.

Business	Technology
▶ Re-engineering of business processes and workflows	▶ Reset on customizations and development
▶ Adopting standard or industry leading practices	▶ Simplification on technology and integrations
▶ Enhance Customer and User Experience	▶ Re-tooling and re-skilling on latest digital technology
▶ Starting with a “clean slate”	▶ Better data and insights
▶ Enabler for transformation	▶ Enabler for innovation

Values

Clean slate | Transformation | Lower TCO | Flexibility | Innovation

Roadmap
Accessing historical data with a greenfield deployment approach

With a greenfield implementation, the recommendation is to limit the historical data to be migrated into the new system. With process changes and optimizations, come changes to the enterprise data model in order to support a more data centric organization. In such cases, historical data will become obsolete over time and becomes costly if migrated to the new system.

Guiding Principles

1. Limit historical data from being migrated to ensure that the new systems has clean data adhering to the new structure and format. Over time history will be built in the new systems and historical data will become obsolete
2. Migrate cleansed master data into the new system and plan to close as many open transactions to minimize the volume of open transaction conversion into the new systems
3. Standard practice for opening balance conversion consists of converting the ending balances (of the last financial period) from the legacy system into SAP S/4HANA
4. Leverage reporting applications to support Historical data that is needed for reporting and analysis (e.g. year over year financial reporting) such as landing it into the data lake and to be reported from other reporting tools such as Microsoft PowerBI
5. Historical data that is needed for references should be available as read-only in the legacy systems (i.e. SAP ECC) and subsequently archive
6. The period that historical data (i.e. 7 years) is accessible is typically dependent on reporting needs and / or regulatory requirements

Roadmap
Other implications to consider in a greenfield deployment

Implications	Impact and Considerations
CHANGE MANAGEMENT	• Change management strategy and plan to analyze the level of impact and solution to addressing business process and potential role changes, removing barriers to adoption of new leading practices.
TRAINING	• High effort and investment into training curriculum and content to re-tool and re-skill the organization on the new processes and technologies being implemented.
DAY-TO-DAY BUSINESS OPERATIONS AND DISRUPTION	• Cutover strategy and planning to ensure the migration and transition to the new system does not disrupt business as usual activities; preparing business continuity plan.
IMPLEMENTATION RISK	• Project governance and quality gate required to continuously monitor project risks as new system and processes will need thorough testing.
AVAILABILITY OF RESOURCES	• Secondment and backfilling for resources; higher involvement and effort required across all phases of the project for a greenfield implementation.
DATA CLEANSING	• Data cleansing/governance plan identifying data owners and data cleansing required to supporting the transition to the new system; start data early.
HISTORICAL DATA ACCESS	• Converting only opening balances into the new system and looking into data lake/reporting solutions for historical data or information lifecycle management toolsets.
DATA ARCHIVING	• Data archiving strategy for retaining historical data for audit purpose; opportunity for ongoing data archiving in future solution.

Implementation Options
Three major decisions were considered in development of roadmap

With the suggested target state architecture and applications, it is recommended that the implementation plan and options start with considering how the core ERP (SAP S/4HANA) will be implemented. Other applications such as SuccessFactors, SAP Analytics Cloud, Concur, and Ariba will have some varying dependencies with the core ERP and as such, the implementation plan for these systems will depend on the integration points, interim processes, and implementation timeline of SAP S/4HANA.

Decision #1 – Implementation options (i.e. which modules and sequence) for SAP S/4HANA (foundation for future phases)

- Decision #2 – Implementation options for SuccessFactors (i.e. implementing Employee Central Payroll earlier or later)
  - Decision #3 – Implementation options for BW/4HANA (SAP Data Warehouse) and SAC Analytics for reporting

Pre-requisites: In all options, it is recommended before the project start to consider performing a General Ledger redesign (i.e. align Chart of Accounts to SAP S/4HANA Best Practices) exercise, data harmonization and report rationalization in preparation for the program.

Quick-wins: In all options, starting with Concur is a quick win with minimal impact/rework but with high benefits.

Do later: In all options, Ariba should be done last given the dependencies and prioritization of the foundational procure-to-pay process in S/4HANA. Start with utilizing core procurement within SAP S/4HANA before adopting advanced features in Ariba can address 80%+ of the must-have pain points upfront.

Implementation options
Evaluation criteria considered for Halton ERP Roadmap

Dimension	Description	Measure based on
Implementation complexity and risks	This criterion evaluates and identifies the risks related to the complexity of implementing the new solution, including system integration, data architecture, availability of skillset and talent, and implementation strategy. The measure will inform the ability to manage the scope, timelines, and budget and to minimize the disruption to the business during the transition to the target architecture.	Low complexity on the execution and deployment of the solution Moderate complexity on the execution and deployment of the solution High complexity on the execution and deployment of the solution
Pace of change	This criteria evaluates the change impact to Halton and the required training needed to adopt the proposed target architecture over the period of the implementation. The measure will inform the ability to transform required employee talent and skillset towards the target profile in order to increase adoption and retain current performing teams.	Lower number of processes, interim solution and system changes Moderate number of processes, interim solution and system changes Higher number of processes, interim solution and system changes
Time to initial benefits	This criteria measures the how soon benefits are expected to be realized by Halton. Business can reap benefits sooner by implementing solutions that are low risk with high benefits, enabling better operational and financial processes without substantial rework and/or interim processes until the target architecture is fully enabled.	Less time to realize initial business benefits More time to realize initial business benefits
Throwaway work / interim process	This criteria measure the amount (effort) that will be throwaway or required interim processes in order to implement the option. A balance between speed to realization and the amount of throwaway work should be considered to maximize the investment towards the new target architecture.	Low-level effort and cost that will be throwaway Medium-level effort and cost that will be throwaway High-level effort and cost that will be throwaway
Deployment best practices and long term sustainability	This criteria evaluates the implementation option and sequence against leading practices and considers the technical and business risks and viability for sustainment. Trying to accelerate solutions without the adequate foundation, dependencies, and maturity can lead to potential adoption and post-live issues.	Common deployment and best practices Occasional deployment approach with interim processes Uncommon deployment approach
Implementation timeline and costs	This criteria measure the total cost of ownership and duration of the implementation in order to understand the expected payback period for this investment towards the new target architecture.	Less implementation cost over duration of project Moderate implementation cost over duration of project High implementation cost over duration of project

Decision #1 – Implementation options for SAP S/4HANA

As the foundation for all other applications (e.g. SuccessFactors, Ariba, SAC Planning), the first decision was to review the timing and sequencing of the module releases in SAP S/4HANA. Based on the evaluation criteria of minimizing complexity and throwaway while addressing the pace of change, Option C was selected.

Option	Pros	Cons	Complexity	Pace	Time to Benefit	Throw-away	Best Practices	Timeline/Cost
A – Big Bang *Implementing all S/4HANA modules with single go-live*	• Shorter Implementation time • Lower Cost • System Wide Testing • Cutover happens in a single roll out • Fast ROI	• Possible issues are larger which increases costs • Business has a shorter time to learn the full scope of S/4HANA • Possibility of Scope Creep • Change Management and Training	🔴	🔴	🔴	🟢	🟢	🟡
B – Core Financials first followed by Operations *Implementing core GL first followed by operational finance, plant maintenance and project system in a second go-live*	• Less Risk • More time for users to adapt to a new system and new Universal Ledger • Legacy Systems can integrate into Core Financials	• Longer Implementation time • Delayed ROI • Delayed Decommissioning of Legacy Systems • Higher Implementation Costs • Interim processes, translation/mappings (complex)	🟢	🟡	🔴	🔴	🟡	🔴
C - Finance/Ops first followed by Projects Systems *Implementing Finance and Plant Maintenance (including warehouse mgmt., quality management and work clearance mgmt.) first, followed by project systems in a second go-live*	• Less Risk and easier Change Management • Ability for users to gain access and use the system faster • Lower volume of issues • Lower Risk of Scope Creep	• Longer Implementation time • Delayed ROI • Delayed Decommissioning of Legacy Systems • Higher Implementation Costs	🟢	🟢	🟡	🟡	🟡	🔴

Decision #2 – Implementation options for SuccessFactors

Once the decision for SAP S/4HANA was made, the next decision was to determine the sequencing of the SuccessFactors modules. Based on the evaluation criteria of minimizing complexity and throwaway while addressing the pace of change, Option A was selected which includes Employee Central Data and Org. Management, Time, Benefits and Payroll (revised Schema) in the first release.

Option	Pros	Cons	Complexity	Pace	Time to Benefit	Throw-away	Best Practices	Timeline/Cost
A – Payroll with SuccessFactors EC	• Both systems are aligned and well-integrated from the get-go • Opportunity to incorporate changes to current payroll pain points in a coherent design • Cleaner data in Core HR • Smoother cutover	• Higher effort upfront • Longer implementation time • Change Management • Delayed ROI						
B – Payroll after Core GL implemented (i.e.. implement EC Payroll after S/4HANA and Employee Central)	• Faster ROI with Core HR • More adoptable and allows for end user experience before revamping payroll • Controlled Change Management	• Additional transformational effort to replicate data in existing payroll system • EC Org structure may need to be revamped again • Cutover complexity • Data Migration effort in Live EC environment • Increased maintenance effort for the interim						

Decision #3 – Implementation options for BW/4HANA

The final decision was to determine the sequencing of BW/4HANA. Based on the evaluation criteria of minimizing complexity and throwaway while addressing the pace of change, Option C was selected.

Option	Pros	Cons	Complexity	Pace	Time to Benefit	Throw-away	Best Practices	Timeline/Cost
A – Start transition to BW/4HANA early and iterate with each wave	• Allow IT to slowly ramp up on BW/4HANA and best practices • Iteratively add modules to BW/4HANA, realizing reporting benefits as project progresses • Option to connect BW/4HANA to ECC and provide better reporting in interim state	• Lack of data in new systems for BW/4HANA to consume and model • A lot of throw-away work if BW/4HANA reports are built from ECC • Slow progress/momentum						
B – Go-live with BW/4HANA and SAP S/4HANA	• Able to build S/4HANA reports in BW/4HANA as the project progresses • No throw-away work/interim state complexity • Data from S/4HANA is available and ready for modelling/testing in BW/4HANA • Users are able to run BW reports the same time as S/4HANA go-live	• Functional teams might be constrained as both S/4HANA and BW/4HANA teams need their inputs and involvement • Higher overall project complexity, large testing effort and more risk						
C – Go-live with BW/4HANA after SAP S/4HANA	• Efficient BW/4HANA development – most S/4HANA config/data are complete and ready to be consumed in BW • Resource availability – most functional resources can focus on BW reporting needs after completion of S/4HANA • Lower dependency and risk	• Prolonged project timeline • Users are not able to run BW reports when S/4HANA goes live – only some reports available in SAC						

EY Implementation Methodology

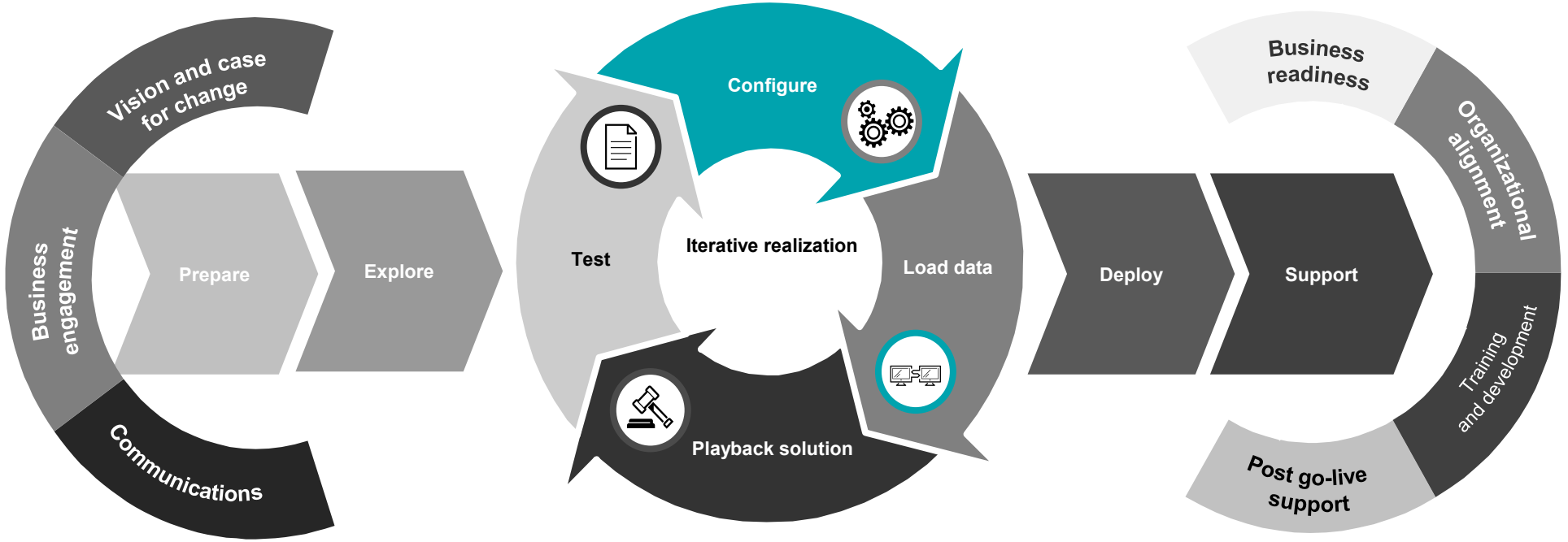
We leveraged EY's Hybrid Agile ERP methodology as a basis for developing the roadmap and related sequencing.

Prototype driven design within the ERP

ERP Best Practices is the design starting point that is realized in collaboration hubs with the goal of adopting vs. customization

Early business engagement

Incorporate EY change management techniques to get organizational alignment and help ensure the business is ready to adopt ERP processes



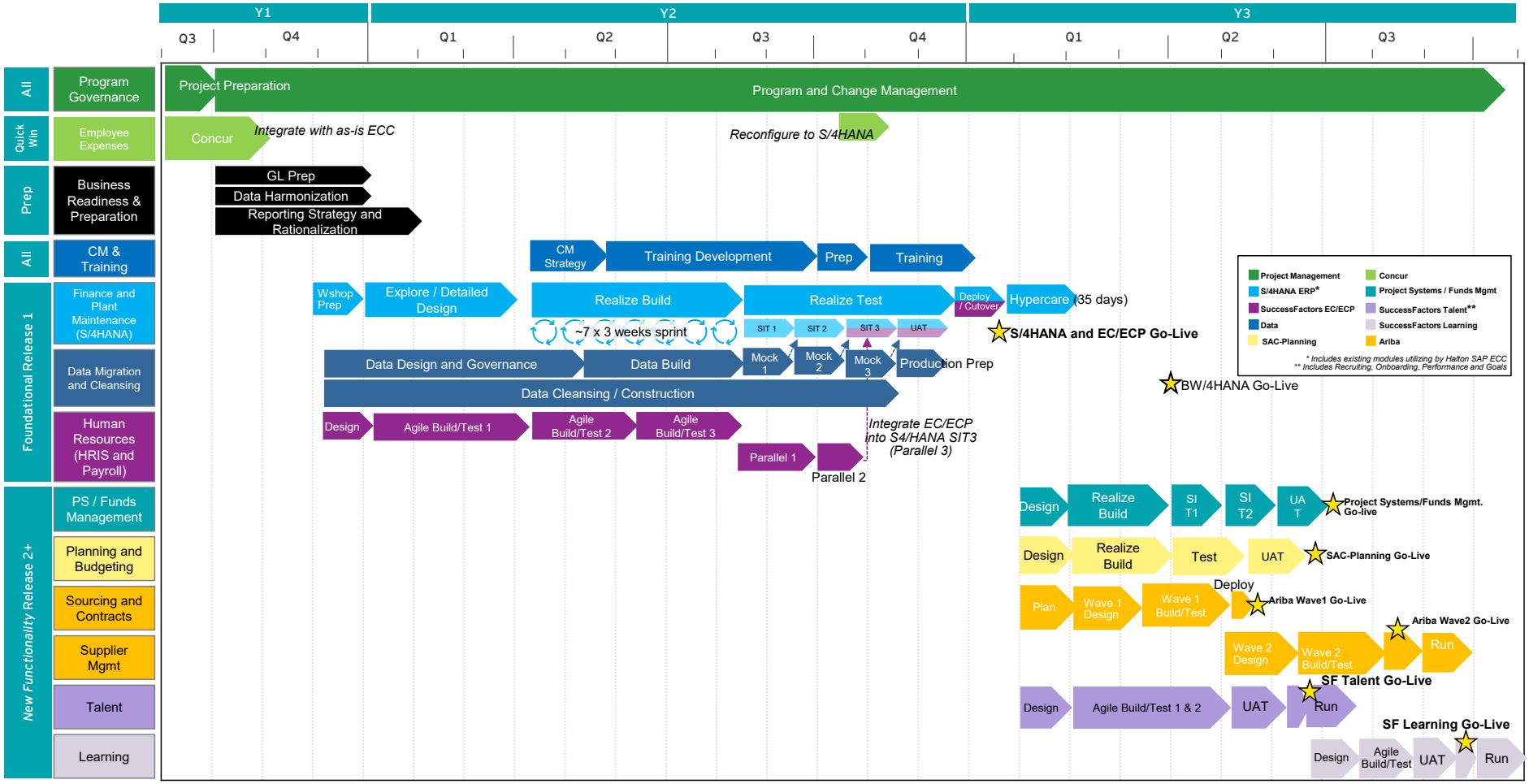
Organizational transformation

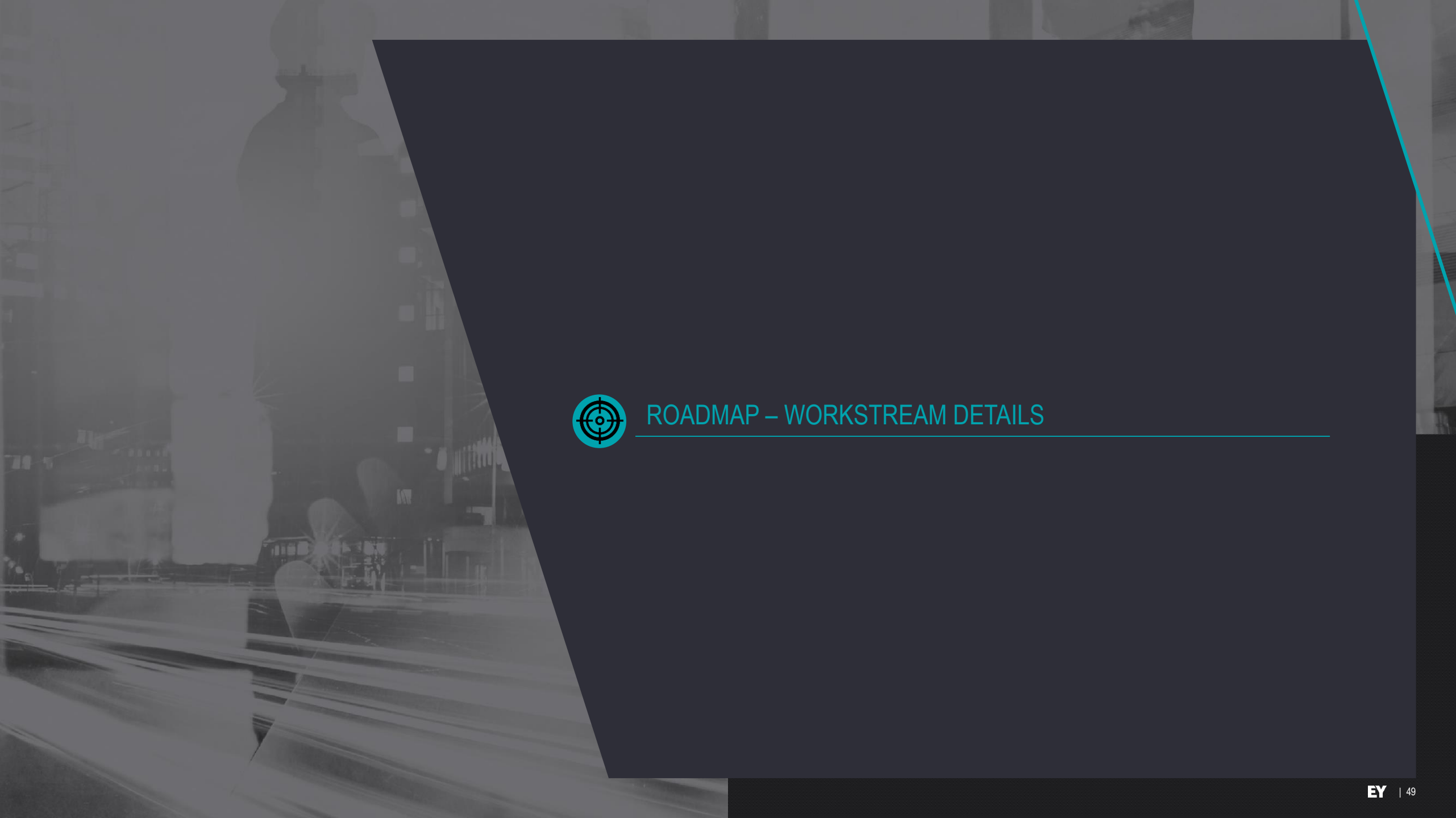
Change management

User experience and enablement

Proposed Roadmap
Program Plan-On-a-Page

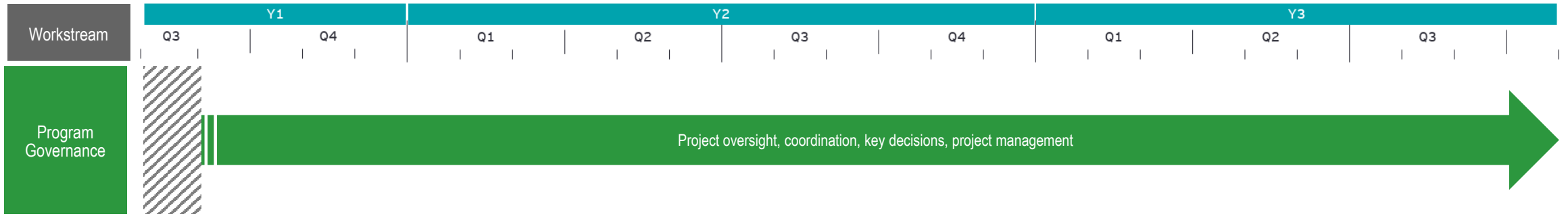
A 14-month implementation of S/4HANA (existing modules), SuccessFactors' Employee Central and Payroll in Release 1 (Foundational) and multiple releases over a 9-month implementation of new functionalities including lift-and-shift existing SF Learning/Recruiting





ROADMAP – WORKSTREAM DETAILS

Workstream: Program Governance



Objectives

- Establish a governance structure, committee roles, and memberships to provide direction and key decisions for the program
- Build an integrated project plan and implement methods for coordinating, tracking, and progress reporting for all workstreams of the transformation

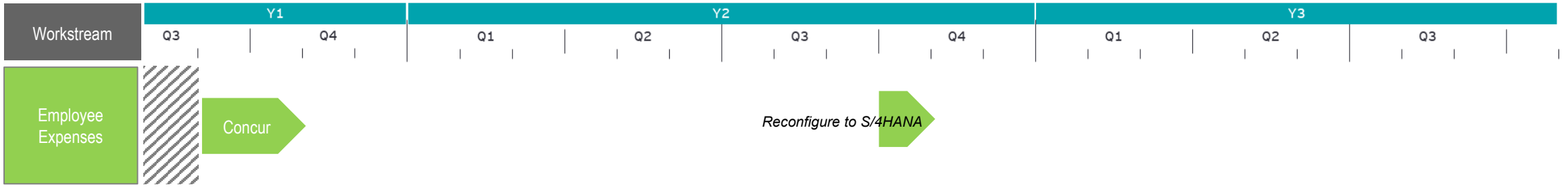
Teams Involved

- Steering Committee
- Program Management Office
- Team Leads

Key Activities

Establish Program Management Office and governance structure	► Overall management, coordination and delivery of transformation programs ► Manages and allocates resources and funding ► Manages the prioritization of transformation programs ► Enables program management discipline and quality ► Establish project RACI ► Manages risk, issues, and dependencies ► Tracks benefits
Establish the Design Authority	► This governance body will ratify and approve design decisions pertaining to target-state business process, model, data and technology solution, architecture and functionality ► Ratification of all design principles and standards; business process models; operating model design solutions; and architecture blueprints, as well as all key design decisions ► Resolution of design decisions in a timely manner to facilitate effective and efficient execution – related to significant modifications to business process, technology and data architecture, decisions providing strategic direction to the transformation program
Ongoing project oversight, coordination and monitoring	► Manage all project plans ► Identify and mitigate all program risks and issues ► Provide frequent progress updates to governance committees, project sponsor, and key stakeholders ► Manage change control log ► Identify dependencies and impacts and monitor progress of other Halton project initiatives

Workstream: Employee Expenses
Quick Win - Concur



Objectives

- Enable a quick win
- Implement employee expenses on Concur
- Concur can be integrated with non-SAP platforms such as Oracle if Halton decides to pursue an alternate ERP strategy

Teams Involved

- Steering Committee
- PMO
- Concur from SAP
- Finance
- Reporting
- Security & Controls
- Change Management

Key Activities

Detailed requirements gathering and ddocumentation of Business Processes	► Define and document detailed requirements ► Establish current state process standard taxonomy and analysis ► Based upon ERP standards, design Target State operational processes
Fit-Gap Analysis	► Determine impact of the target processes based upon the current state analysis ► Perform gap analysis between target state and SAP processes ► Develop functional specifications to meet functional gaps
Build	► Configure the system to meet the requirements ► Develop objects to meet functional gaps ► Define Security & Controls Requirements ► Complete unit testing of configuration and development ► Prepare for integration testing
Test	► Execute system integration test cycles ► Execute UAT and obtain end user signoff on system functionality
Cutover	► Prepare production environment
Hypercare	► Provide break/fix support in production environment for 35 days
Reconfigure	► Update Concur to align/integration with S/4HANA implementation

Workstream: Business Readiness & Preparation

Objectives

- In preparation for the program review the Chart of Accounts and the code block
- Prepare for data cleansing and harmonization activities
- Develop a reporting strategy
- Rationalize reports in alignment with the strategy and Reporting Architecture

Teams Involved

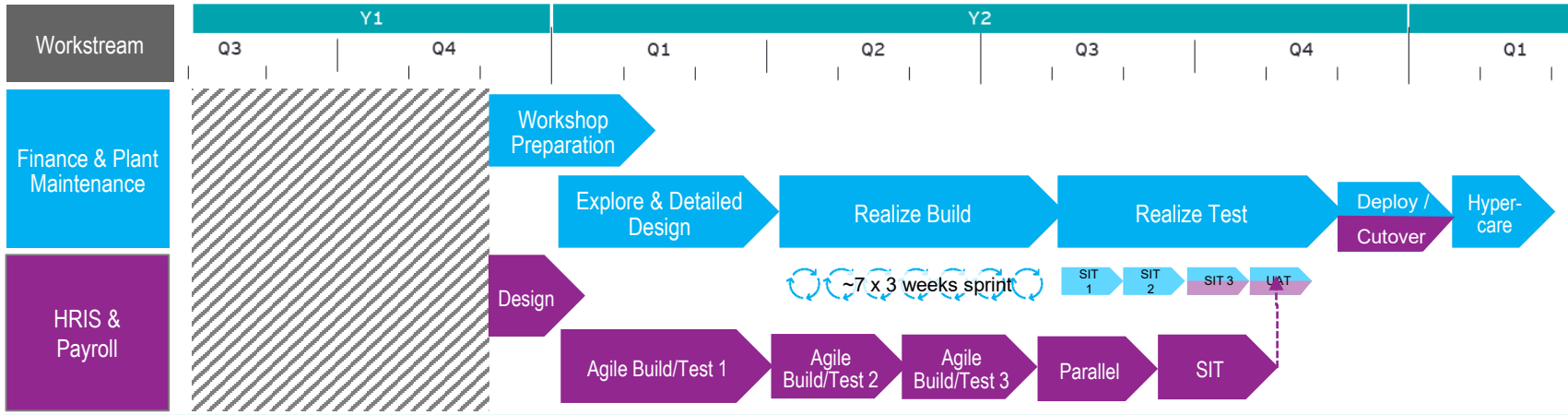
- Finance
- Plant Maintenance
- Data Team
- Data Owners from:
  - Finance
  - Plant Maintenance
  - HR
- Reporting Team

Key Activities

Prepare for the New GL	► Conduct General Ledger workshops to complete: ► Review of the current Chart of Accounts ► Review the current Code Block including Enterprise Organization Structures ► Rationalize the COA and code block as per requirements for the New GL code block
Data Readiness	• Conduct data workshops to complete: • Data strategy • Conversion approach • Current-state data landscape review • Perform data profiling for in-scope data objects • Draft detailed profiling results and cleansing plan • Drive stakeholder alignment and socialization discussions
Develop a Reporting Strategy, Reporting Architecture and Conduct Report Rationalization	► Conduct reporting workshops to complete: ► Reporting and Analytics Strategy ► Review and rationalize current report set to develop target reports

Workstream: Foundational Processes

Finance, Plant Maintenance on S/4; HRIS & Payroll on SuccessFactors



Objectives

- Create foundational layer in S/4 and SuccessFactors for subsequent releases
- Implement most of the Must-Have requirements based on Pain Point Analysis

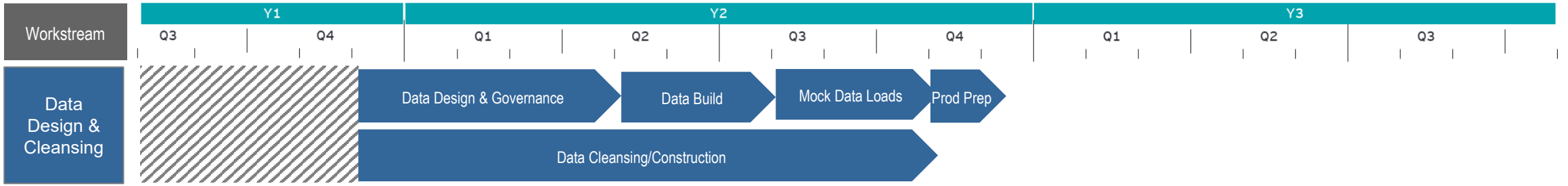
Teams Involved

- Finance
- Plant Maintenance
- Human Resources
- Data
- Reporting
- Security & Controls
- Change Management

Key Activities

Detailed requirements gathering and documentation of Business Processes	► Define and document detailed requirements ► Establish current state process standard taxonomy and analysis ► Based upon ERP standards, design Target State operational processes
Fit-Gap Analysis	► Determine impact of the target processes based upon the current state analysis ► Perform gap analysis between target state and SAP processes ► Develop functional specifications to meet functional gaps
Build	► Configure the system to meet the requirements ► Develop objects to meet functional gaps ► Define Security & Controls Requirements ► Complete unit testing of configuration and development ► Prepare for integration testing
Test	► Execute system integration test cycles ► Execute parallel testing for Payroll and Integrate with S/4 workstream after System Integration Testing (SIT) IT to ensure integration points ► Prepare contingency plan to risk mitigate parallel testing if planned parallel test cycles are not successful ► Execute User Acceptance Testing (UAT) and obtain end user signoff on system functionality
Cutover	► Prepare production environment with converted data and opening balances
Hypercare	► Provide break/fix support in production environment for 35 days ► Transition ongoing maintenance to sustainment organization

Workstream: Data
Design, Migration and Cleansing



Objectives

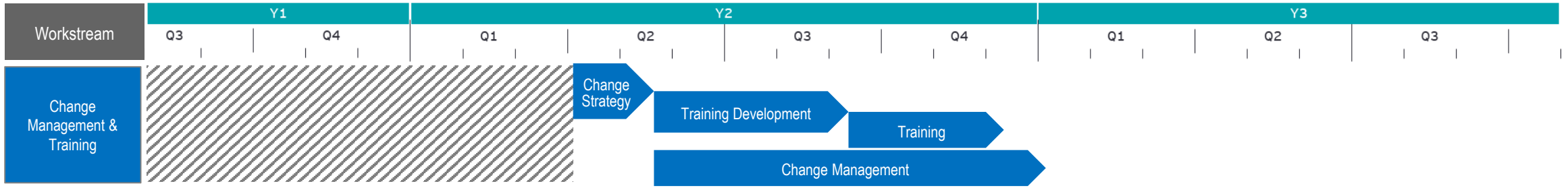
- Alignment on holistic data strategy, conversion strategy, and reporting strategy
- Data profiling of major objects, data standards definition, and data plan/effort

Teams Involved

- Data Team
- Data Owners from:
  - Finance
  - Plant Maintenance
  - HR

Key Activities	
Data Design & Governance	► Establish data cleansing processes ► Establish data governance model ► Establish data migration strategy ► Identify and assign data owners
Data Build	► Define mapping rules ► Define data cleansing and migration rules ► Execute data cleansing and migration ► Build data migration extraction, transformation and load program(s) ► Review results with stakeholders
Mock Data Loads	► Execute 3 mock data loads ► Align these loads with integration test cycles
Production Preparation	► Prepare for production loads ► Review and signoff on data to be loaded (business validation and reconciliation) ► Execute cutover data loads ► Review and signoff on production data loads with stakeholders

Workstream: Change Management
Change Management & Training



Objectives

- Establish a strategy to ensure:
  - Stakeholder engagement and support
  - User acceptance and understanding of the solution
- Communicate process/technology changes
- Support users throughout the digital transformation
- Generate a dialog and feedback loop to be responsive to the evolving context of the transformation

Teams Involved

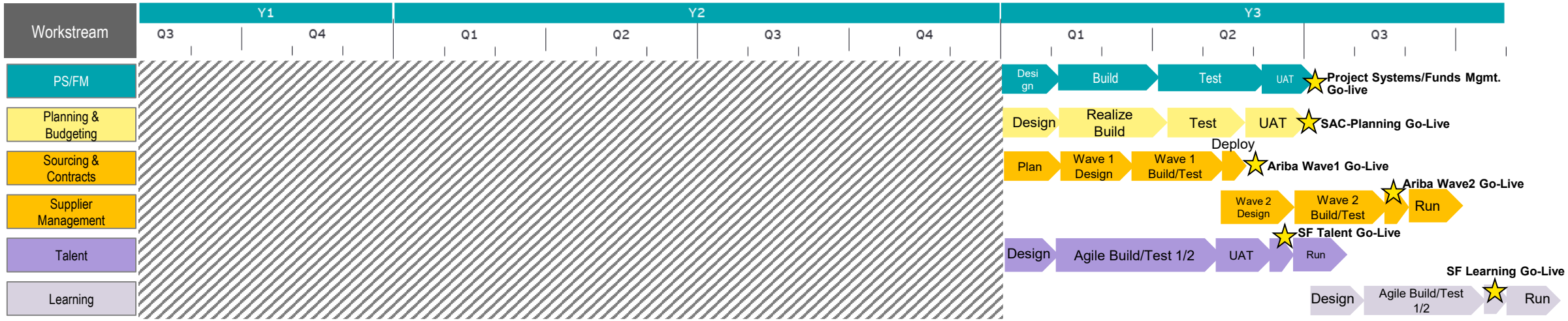
- Steering Committee
- Change Management
- Finance
- Plant Maintenance
- HR
- Data
- Reporting

Key Activities

Define Change Management Strategy	► Formulate a single, clear strategic direction & alignment with business & information strategy ► Identify key areas of change (e.g. people, process and technology) and high level strategy by phase (prepare, manage and reinforce change) ► Perform stakeholder engagement analysis and develop engagement plan ► Develop communication approach and strategy (channels, approaches/tactics, calendar, etc.) ► Identify resources and expertise required to conduct change management program ► Validate synchronization of activities with Roadmap key milestones
Change impact analysis of process	► Develop impact and business readiness assessments ► Prepare process change documentation and training materials ► Refine and detail communication and training activities originally planned
Communication	► Validate communication plan, detailed calendar and synchronization of program activities and dependencies ► Develop and perform communication activities and material
Change Enablement & Training	► Define training plan, develop training material and content ► Plan and execute training logistics ► Conduct “train-the-trainer” and end-user trainings based on the training strategy

Workstream: Release 2+

PS, FM, Planning, Sourcing, Supplier Management, Talent, Learning



Objectives

- Enable new functionality to address pain points
- Enable incremental go lives as follows:
  - PS/FM
  - Planning and Budgeting
  - Ariba Sourcing and Contract Management
  - Supplier Management
  - Talent
  - Learning

Teams Involved

- Steering Committee
- PMO
- Finance
- HR
- Data
- Reporting
- Security & Controls
- Change Management

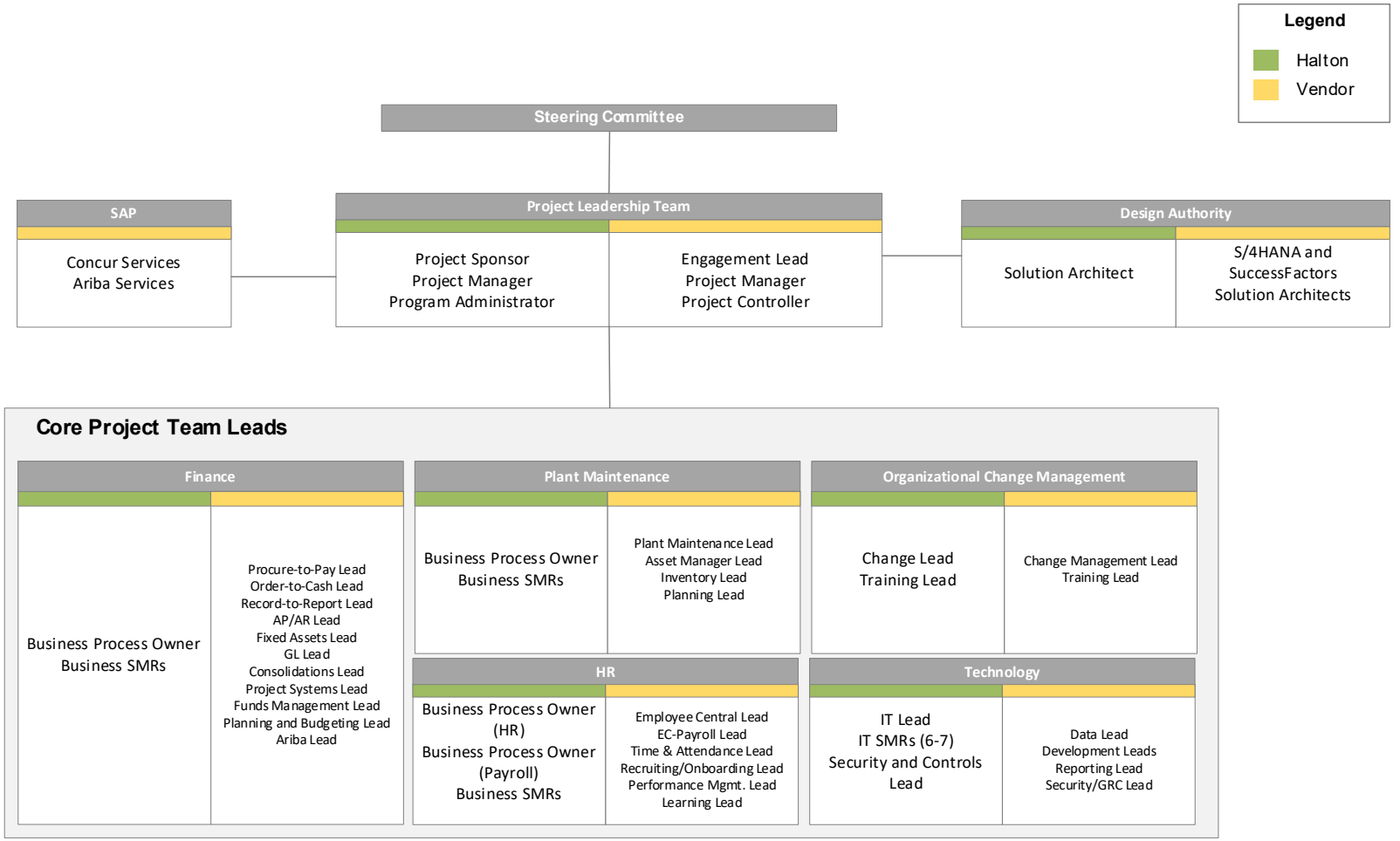
Key Activities

Detailed requirements gathering, documentation of Business Processes and fit-gap analysis	► Define and document detailed requirements ► Establish current state process standard taxonomy and analysis ► Based upon ERP standards, design Target State operational processes ► Perform gap analysis between target state and SAP processes ► Develop functional specifications to meet functional gaps
Build & Test	► Configure the system to meet the requirements ► Develop objects to meet functional gaps ► Define Security & Controls Requirements ► Complete unit testing of configuration and development ► Prepare for integration testing ► Execute system integration test cycles ► Execute UAT and obtain end user signoff on system functionality
Cutover	► Prepare production environment with converted data
Hypercare	► Provide break/fix support in production environment for 35 days

RESOURCING PLAN

Resourcing
Project Organization Structure

A project organization structure to govern the implementation across the releases was proposed:



The proposed project organization structure is indicative for Halton to execute its ERP transformation roadmap, with some resources transitioning to the sustainment organization.

- 2-in-a-box approach for project leads.
- Business Subject Matter Resources (SMRs) will vary between 10-15 part-time resources depending on their knowledge base.
- Some Business SMRs would be expected to become near full-time throughout the project to support both the Data and Testing workstreams.
- IT SMRs will be approximately 6-7 full time resources to obtain practical S/4HANA and SuccessFactors experiences and knowledge to support the systems post go-live.

Resourcing
Halton Roles and Responsibilities

Role	# of resources	Responsibilities	Estimated Allocation by Project phase					
			Prep	Explore	Realize Build	Realize Test	Deploy	Run
Project Sponsor / Steering Committee	1	• Participate in project governance, key communications, and quality gate (checkpoints in the project to measure quality) exit. • Participate in Change Control Board with major timeline/resource/budget impacts • Review and resolve escalated major Risk, Actions, Issues, and Decisions (RAID) log items	0-10%	0-10%	0-10%	0-10%	0-10%	0-10%
Project Manager	1	• Responsible for the daily Halton team delivery. • Work with Vendor's Project Manager to oversee the overall Project planning and progress toward agreed-upon goals across all aspects of the implementation effort. • Responsible for escalations to Project Sponsor and Steering Committee to resolve issues and turn around on decisions. • Contribute to and review the overall Project Plan; including coordinating task dependencies and establishing Milestone Project goals that keep the Project on time and within budget. • Manage the governance procedures for change control, decision-making, risk management, and issue resolution, including documenting the procedures and publishing the documents for the team. • Contribute to and help manage the status reporting template, procedure, and cadence, gaining alignment from the Halton project leadership and managing the cadence with the team. • With the Vendor's Project Manager, track progression throughout the phases and sub-phases of the Project and report on adherence to the Project's stated scope, timeline, resources, and budget to the project leadership group. • Responsible and point of contact for vendors including SAP and other third-party software suppliers and system integrators • Contribute to and review the toll gate entrance and exit criteria. • Directly manage the Halton resources with the Business Lead and IT Lead.	100%	100%	100%	100%	100%	100%
Program Administrator	1	• Provide administrative support to Halton Project Manager with internal management and coordination of Halton resources	50%	50%	50%	50%	50%	50%
Solution Architect	1	• Responsible for coordinating, managing, and leading cross-functional integration design within SAP • Responsible for coordinating with non-SAP teams to interface between SAP and third-party systems • Oversee all functional and technical activities in the Build stage and review/approve critical deliverables • Provide functional and technical inputs to cutover plan for both SAP and non-SAP legacy systems • Participate in Hypercare planning • Participate in Go/No Go checkpoint meeting(s) • Participate in Hypercare, as required	30%-40%	80-100%	40-60%	80-100%	60-80%	100%

Resourcing
Halton Roles and Responsibilities

Role	# of resources	Responsibilities	Estimated Allocation by Project phase					
			Prep	Explore	Realize Build	Realize Test	Deploy	Run
Business Process Owners	3	• Manage and lead Halton subject matter resources within stream (e.g. Record to Report) • Overall Halton responsibility for work products, deliverables, and key activities within the stream • Overall Halton responsibility for ensuring end-state solution will meet business requirements and processes • Identify and mobilize the Business SMRs. • With the Project Managers, manage the Halton business SMR's activities. • Escalate any Halton resource allocation issues to the Halton Business Lead. • Manage the team members against the Project Plan. • Coordinate and oversee the team members adhering to the governance procedures and provide team status updates to the Integration Manager. • Participate in design workshops as needed • Identifies opportunities for process improvement, co-ordinates and implements automated solutions around routine / repetitive tasks • Analyzes and prioritizes detailed requirements and work to be done • Review and provide feedback on high priority, cross-functional Business Process Documents • Participate in solution playbacks and validation sessions • Provide any business clarification required • Assist with test preparation activities as required • Participate in any mock cutover activities if required • Support unit testing as required • Participate in SIT scenario identification as needed • Support Training Hypercare planning as required • Coordinate and lead Halton stream resources through assigned cutover activities • Participate in Hypercare	30%-40%	80-100%	40-60%	80-100%	60-80%	100%

Resourcing
Halton Roles and Responsibilities

Role	# of resources	Responsibilities	Estimated Allocation by Project phase					
			Prep	Explore	Realize Build	Realize Test	Deploy	Run
Business SMRs	10-15	• Assist Halton Business Process Owners and Vendor's Stream Lead by providing any input requested by program management and leadership teams • Provide information on business requirements • Participate in design workshops and review and provide feedback on Business Process Documents • Participate in solution playbacks and validation sessions • Assist with test preparation activities as required • Participate in any mock cutover activities if required • Support unit testing as required • Support testing activities including execution, logging and resolving defects, and supporting UAT • Support training material creation as required for non-SAP system components • Support Hypercare planning as required • Assist Vendor's Data Lead by providing any input requested by program management and leadership teams	0%-5%	50%-60%	10%-15%	10%-25%	25%-50%	20%
Data Owner (can also be performed by Business SMRs)	10-15	• Review and provide input to the captured data requirements in the Requirements Traceability Matrix • Review and provide input to the Data Object master • Participate and provide support in data council items • Review and sign-off data profiling results • Provide input to key decisions for data cleansing • Support data definition discussions and make critical data decisions. • Participate in the data mapping discussions, providing the logic required to translate data for SAP. • Enter data into the data construction templates for data that does not exist in the legacy systems • Assist with data extraction from legacy systems as required. • Execute data verification and validation for mock and real data loads, logging defects, and signing off on the data in the system. • Provide input to data-related security roles, as required.	0-5%	10%-25%	60-80%	60-80%	60-80%	80%

Resourcing
Halton Roles and Responsibilities

Role	# of resources	Responsibilities	Estimated Allocation by Project phase					
			Prep	Explore	Realize Build	Realize Test	Deploy	Run
IT Lead	1	• Oversee IT and cross-functional resource activities • Coordinate the IT-related Halton resources required for the stage • Overall Halton responsibility for infrastructure and BASIS setup for the Sandbox, Development, Quality, Training, and Production SAP systems • Execute required hardware procurement steps • Approve development standards and strategy documents (Security, Landscape/Infrastructure, Legacy Decommissioning, Data, Development) • Responsible for coordinating, managing, and leading legacy-specific changes to enable the SAP solution (e.g. interfaces between SAP and third-party systems) • Participate in disaster recovery and contingency planning • Participate in producing the Long-Term Post-Implementation Plan • Oversee all technical activities in the Build stage and review/approve critical deliverables • Provide technical inputs to cutover plan for both SAP and non-SAP legacy systems • Oversee the development of training materials for technical resources • Participate in Hypercare planning • Participate in Go/No Go checkpoint meeting(s) • Participate in Hypercare, as required	30%-40%	40%-60%	40%-60%	60%-80%	50%-60%	80%-100%
IT SMRs	6-7	• Assist Halton and Vendor's IT Lead by providing any input requested by program management and leadership teams • Follow the governance and status reporting procedures. • Provide information on non-functional requirements (e.g. BASIS, Security, infrastructure requirements) • Participate heavily in detailed solution design discussions on integration points with legacy systems • Assist with system build and integration with non-SAP systems • Participate in unit testing and documentation • Assist with identify test scenarios for integrated testing • Support testing activities and resolve any non-SAP system defects (interim states, interfaces, etc.) • Assist with identify cutover activities, and specifically tasks required to be executed in legacy systems as part of cutover	5%-10%	60%-80%	60%-80%	60%-80%	60%-80%	100%

Resourcing
Halton Roles and Responsibilities

Role	# of resources	Responsibilities	Estimated Allocation by Project phase					
			Prep	Explore	Realize Build	Realize Test	Deploy	Run
Security and Controls Lead	1	• Provide input, review, and sign-off on security design • Provide input, review, and sign-off Risk & Controls Matrix • Review and provide input to build roles, validate unit testing results, and provide alignment to documentation • Review and sign-off on completed any controls-related documentation • Support integrated testing activities, and resolution of any security-related defects	0%-10%	50%-75%	20%-40%	40%-60%	20%-40%	20%-40%
Change Lead	1	• Assist Vendor's CM Lead with the Stakeholder Registry • Provide input, review, and sign-off solution-related change impacts and assessment • Provide input, review and sign-off communication plan and assist with execution of the plan • Participate in the Change Network, as required • Participate in training plan • Assist in overseeing training delivery	10%-25%	60%-80%	60%-80%	60%-80%	60%-80%	50%-60%
Training Lead	1	• Assist Vendor's Training Lead in the development of the training strategy • Providing input to training curriculum and courses • Support the development of the training plan • Organize logistics for training of Halton resources • Oversee training delivery	0%	0-10%	60-80%	60-80%	80-100%	40-60%

SOLUTION ASSUMPTIONS

Roadmap Assumptions

Best practice assumptions:

- The target architecture assumes all integrations will go through a central integration layer (SAP Integration Suite) and there will be no point-to-point integrations
- The roadmap and sequencing assumes a fiscal year start go-live for S/4HANA and SuccessFactors as best practice (for Payroll and the General Ledger)
- The roadmap and sequencing for SuccessFactors is to implement Employee Central and EC-Payroll in parallel to minimize rework; For EC-Payroll it also assumes the effort to redesign the payroll schema
- The effort and duration of the plan was driven by EY's Estimating Models for SAP which consist of the following drivers: SAP applications/modules, L2/L3 Business Processes and customizations
- The number of Halton resources suggested assumes resources have taken basic SAP training and are knowledgeable in their subject area at the start of the program
- The post go-live support (Hypercare) of 35 days has been factored into the plan

Halton specific assumptions:

- This assessment assumes the target architecture is to continue on an SAP platform (i.e. S/4HANA, SuccessFactors)
- The roadmap and sequencing factored implementation costs, risks and efficiency as the primary criteria resulting in one larger go-live with S/4HANA and SuccessFactors that forms the Foundational Release 1
- The timeline assumes that resources are available at the start of the implementation
- The resourcing plan for the Reporting team assumes over 50% of the custom reports today will no longer be required to be built and that standard Fiori analytics will be leveraged

SKILLS GAP ASSESSMENT AND RECOMMENDATIONS

Skills Gap Assessment and Recommendations

It is imperative that Halton resources that participate in the planning, design, build, testing, implementation and sustainment of the new solution have the SAP S/4HANA knowledge and skills required to do so. Halton should be an informed partner to its implementation vendors throughout the program.

The following section explores Halton's IT and Business groups needs, perspectives and expectations to be able to support these project and ongoing activities. This section does not encompass end user change management or training needs, which should be aligned to the change impact assessment conducted during the project.

This section covers:

- Reviewing the Current Landscape
- Recommendations: Addressing Skills Gaps
- Recommendations: Strategic alignment and Governance or Project Delivery and Sustainment

Skills Gap Assessment and Recommendations
1. Reviewing the Current Landscape

Assess the current state of Halton's IT and Business groups to inform focus and considerations for developing future state capabilities by:

- Conducting stakeholder interviews
- Understanding current operating processes and alignments
- Examining organizational structure and roles – formal and informal

Outcomes:

- Clear view of Halton's current state in relation to IT Application services and business engagement
- Insight into the critical gaps and collective level of maturity within IT and Business groups
- Identification of key themes

Current Landscape
Skills Gap Assessment: Approach

It is imperative that Halton resources who participate in the transformation program have the capabilities, SAP S/4HANA knowledge and skills required to do so. Halton should be an informed partner to SAP, its implementation vendor and any Application Management Systems (AMS) vendor throughout. To assess where this skill set sits today and where it needs to be in order to support the implementation the following approach was taken:

Methodology and Objective:

Leaders from IT, Finance and HR attended a series of workshops, responding to a series of questions focused on the current landscape of the IT and Business areas as individual groups and as partners. The insights gathered inform the IT skills assessment and broader talent strategy to support S4/HANA.

Workshop Discussion Topics

1. Current cloud skills and experience transitioning to Success Factors
2. Business needs and internal experience/expectations
3. I.T. opportunities, talent strategy and broader integration with business partners

Note: Other Business areas and leadership teams in the organization may have different points of view and their perspectives are not represented in these findings.

Current Landscape
Key Challenges Gathered from Workshops

5 major challenges were gathered from the workshops held with key stakeholders and key insights are described in the subsequent slides.

- **Resourcing and Retention Risk**
- Capacity Constraints and Capability Gaps
- Inadequate Documentation and Transition to Sustainment
- Inadequate Governance and Defined Roles/Responsibilities
- Misalignment between IT and Business Areas

Current Landscape
Challenge 1: Resourcing and Retention Risk

Observations

- Digital strategy is shifting IT to a product management orientation, and this will be a significant change, moving from focusing on individual projects to establishing vision, goals, and business trajectory of a product in alignment with business goals and needs
- Resourcing and retention are a risk to the digital strategy:
  - Limited succession plans are in place for IT managers nearing retirement age
  - Primary recruiting challenge for IT is pay expectations. Halton is unable to compete with the private sector
  - Knowledge sharing is done by superusers and managers, side of desk with risk of losing significant knowledge when superusers and managers leave the organization
- Halton IT Applications team experiencing organizational change fatigue
- S/4HANA and SAP ECC skills are “hot” in the talent marketplace, making experienced resources expensive to recruit and critical to retain

Actions to Date

- Product Management conversations initiated with Gartner and internal management

Current Landscape
Challenge 2: Capacity Constraints and Capability Gaps

Observations

- Both IT and Business groups do not have capacity within their existing roles to upskill or for continuous learning
  - Additional responsibilities due to new (transformational) IT services will put primary job activities at risk
- Due to capacity constraints Halton IT Applications team does not participate in projects
  - External resources are used to manage newer services thereby further stagnating current IT skill development
  - Formal process for sharing coding and configuration knowledge with Halton IT application team is not in place
  - Open tickets with SAP and implementation partners to resolve issues raised though Help Desk requests
  - IT Application team is informally trained through knowledge transfers (KT), attending SAP preferred customer sessions and learning on the job. Assessments are not performed to determine success
- Formal KPIs and targets are not in place for Halton IT
  - Performance assessments are based on individual achievements however associated measures are not in place
  - Informal based training or development plans are in place to address qualitative role requirements such as skill sets and experience
- Managers and designated super users and peers are relied upon to be subject matter resources (SMRs) and to close knowledge and skill gaps
  - Super users in HR have grown on-the-job, no formal process for knowledge sharing
  - Super users and SMRs in Finance are not formally identified or recognized – they are known as “go to" people informally

Actions to Date

- Training budget process under review as part of F23 digital transformation
  - Exploring the opportunity to include IT training in project budgets
- Plans in place to develop KPIs based on strategic objectives for region, then to department objectives and then down to Halton IT Applications team

Current Landscape

Challenge 3: Inadequate Documentation and Transition to Sustainment

Observations

- Project documentation is informally transitioned to impacted Business and IT support groups (e.g. test scripts, configuration workbooks, business process designs, technical specifications)
- Processes and procedures are not in a centralized repository
- No organization wide standard of writing processes and procedures; each business group uses their own approach, typically determined by who is writing them
- Lack of standardization and automation of processes; no clear definition of roles and skills required to support this work
- Training documentation is developed within teams, departments; may not be considered

Actions to Date

None observed

Current Landscape

Challenge 4: Inadequate Governance and Defined Roles/Responsibilities

Observations

- There is an unmet desire for formal project management discipline, integrating IT and Business groups
- Desire for job roles to be better defined and updated to reflect actual tasks being performed formally and informally
  - Business groups do not have dedicated project roles to represent business deliverables; side of desk work
  - Process owners are not formally identified. Typically, managers play this role but do not have formal control oversight over processes hindering the ability to proactively address changes or improvements
  - Training needs identified under new releases is managed through super users/peer-to-peer training; no standard or structured approach across areas
  - Business superusers have been used on previous projects and has been a successful approach to support project deliverables and train end users and peers
- Some employees have attempted to drive continuous improvement however are hindered (lack of process, people, resources etc.)
- Finance owns employee master, vendor master. Managers of various areas own the data. HR and Payroll processes are complicated as a result

Actions to Date

- The following Digital Strategy governance bodies have been recently created to incorporate business priorities in decision making relating to IT projects:
  - Digital First Leadership Team
  - Digital Onboarding Architecture Board
  - Digital Intake Board

Current Landscape
Challenge 5: Misalignment Between IT and Business

Observations

- Business groups are interested in learning about available functionality in order to identify continuous improvement opportunities and doing things better
- Finance is in various states of developing a continuous improvement practices
  - Ex. Payroll has some business analysts
  - A project resource in Finance maintains a connection with Payroll, ensuring there is connection/integration between shared processes
  - These resources are from operations who have full time roles critical to operations
- Business groups do not attend SAP conferences, limiting ability to plan for and seek out opportunities for improvement/enhancements
- Desire for improved engagement in proactively identifying and triaging business needs and IT responding to them
- Typically, Business areas reactively respond to new or changing IT services
  - Business areas have been agile in responding to crisis but due to lack of goal alignment and competing department demands and goals, they are feeling pulled
- Releases are managed based on team capacity
  - IT connects with Business groups to plan new releases. Business areas support testing based on availability; if unable IT completes testing on their behalf causing capacity issues and other downstream impacts

Actions to Date

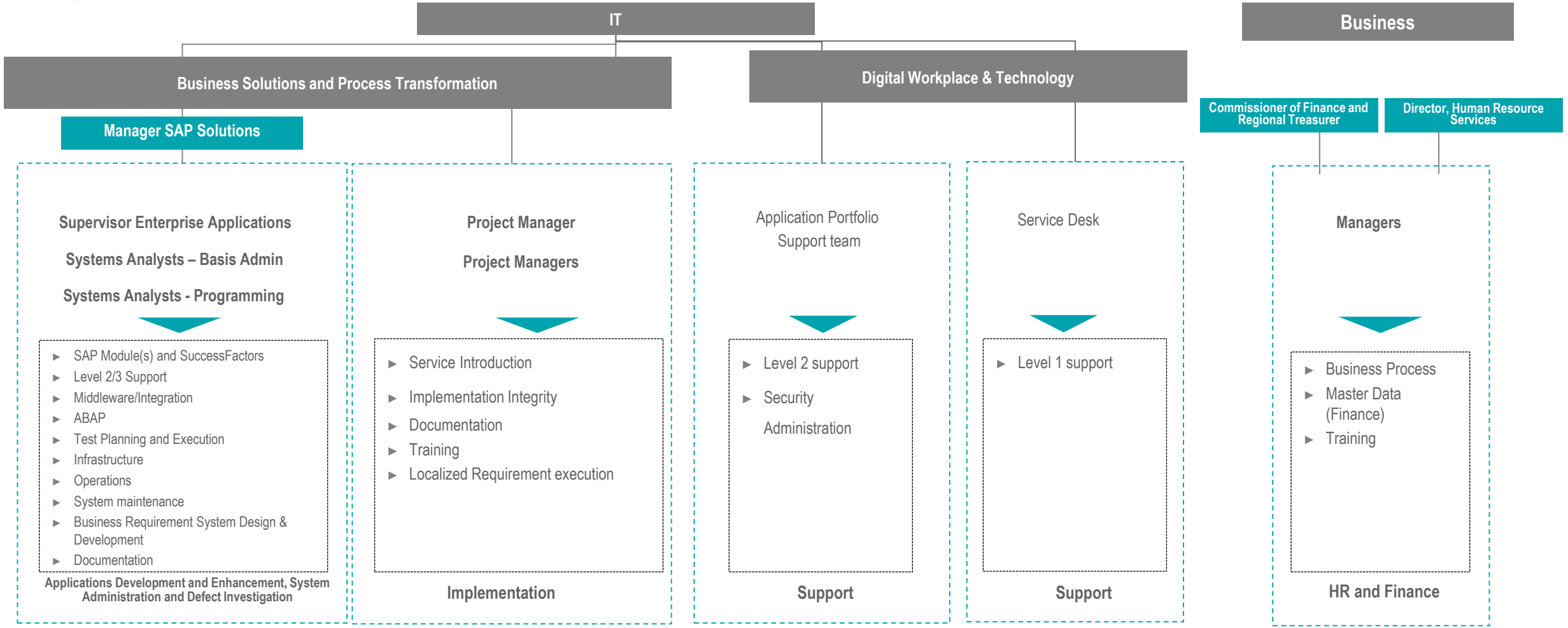
Governance model for digital strategy in place:

- Commissioners act as chairs
- The committee manages corporate goals however with 5 streams of work there is a competition for resources

Business groups are in various stages of operationalizing strategic continuous improvement

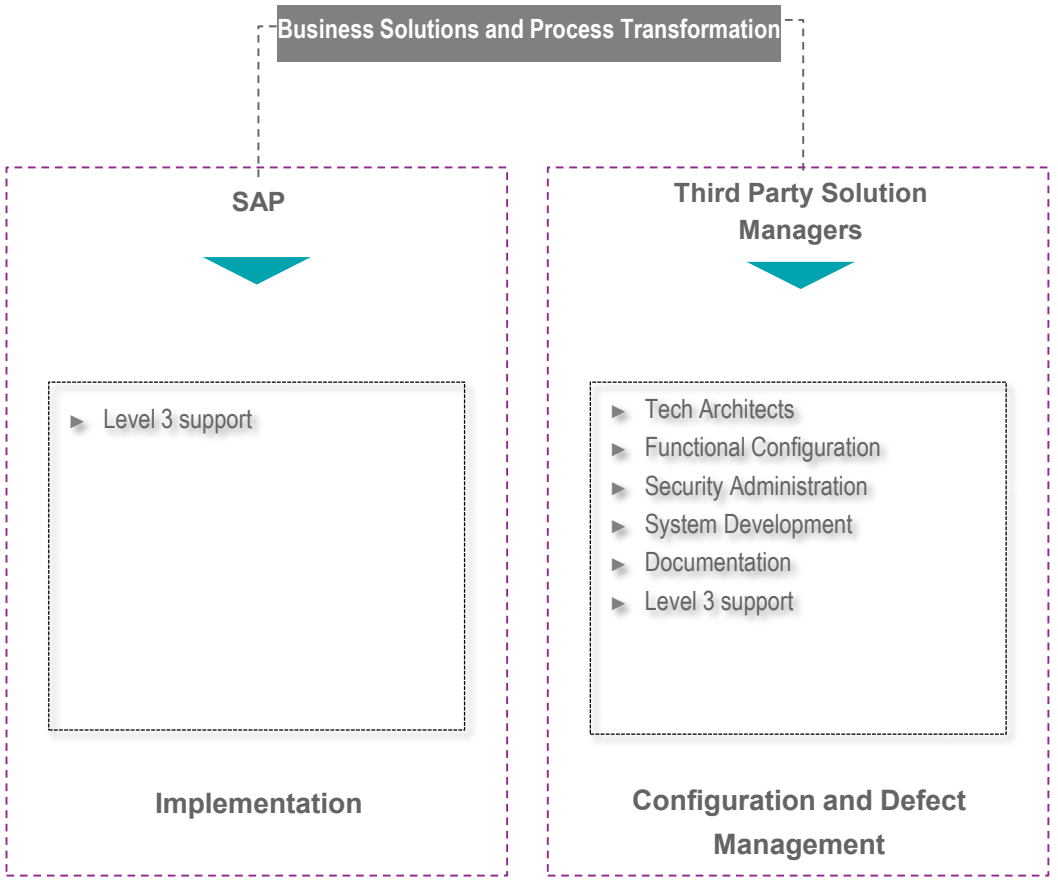
Current Landscape
Capabilities Overview: Halton

Although Halton has many of the capabilities required to support the current SAP ECC and Success Factors architecture, they are distributed across a number of groups.



Current Landscape
Capabilities Overview: Outsourced

Foundational capabilities needed for the project are currently outsourced to third party solution managers. With the exception of some level 3 support, these capabilities are not available in-house. These capabilities and skills would need to be developed through formal training and knowledge transfers.



Skills Gap Assessment and Recommendations
2. Recommendation: Addressing the Skill Gap

- A primary recommendation to address the skills assessment is to reinforce and enhance the capabilities required to support S/4HANA. At the same time, additional capacity is required to support the existing ECC solution, participate in the S/4HANA driven transformation, and sustain that future solution
- Components of this recommendation include:
- Resourcing options to build capacity and capability in IT, process owner and SMR groups
- Learning journey, including SAP training and project knowledge transition

Recommendations: Addressing Skills Gaps
Required Capabilities to Support S/4HANA

These are the target capabilities required to support an ERP. Halton has baseline capabilities in these areas but these will need to be developed and reinforced during the project through to sustainment.

Capability	Description
Technology/Application	The analysis, design, development, code, test, and release packaging services associated with application development.
Application Support	The operations, support, fix, and minor enhancements associated with existing applications. Provides level 2 and level 3 technical support to more complex or difficult user questions and requests.
Architecture	Guides organizations through the business, information, process, and technology changes necessary to execute their business and IT strategies.
Change Management	Sets the people-related strategy, develops corresponding collateral, and addresses people-related questions and issues. Sets expectations for adoption of new behaviors, generates excitement, cascades communications and build employee awareness, knowledge and support.
Governance	Provides strategy, policies, and processes for managing an overall governance, enterprise risk management and compliance with regulations, with regards to IT. Provides structured approach for aligning IT with business goals and objectives, while managing risk and meeting compliance requirements.
Process	Includes the identification and definition of Halton business processes, the re-engineering of processes due to new technologies and processes. Represents how the organization drives business outcomes.
Data	Provide a variety of data-related services that capture and retrieve transactional activities in a database, store the data in a centralized data warehouse, provide analytical and visualization tools to explore the data and caching technology to distribute information to the edge to improve performance and response times.
Requirements	Identifies capabilities that specific software or service (typically both) needed based on business needs.

Addressing the Skills Gap
Recommendation: Closing the Skills Gap

In order to have sufficient capacity and capability for the SAP Transformation project and to sustain the new business processes and SAP solution, Halton needs to update workforce and training plans.

Build Capability and Capacity in IT and Business

- Define the talent management strategy for IT and the SAP solution, leveraging the resource requirements in this document
- Determine the “build” versus “buy” strategies to support the project and through to sustainment
  - Establish staffing, backfill, retention and succession plans for IT and Business employee and management roles
  - Identify skill gaps and critical knowledge areas
  - Establish clearly defined job descriptions to increase performance transparency, alignment and accountability
- Prior to project start, complete standard SAP-delivered S/4HANA training
- Plan for and complete knowledge transfer during the project, completed prior to the end of hypercare

Addressing the Skills Gap
Resourcing Options for IT

Halton has multiple options to source the requisite capabilities. The ultimate approach should align to Halton's Talent strategy, budget and long term plans.

Option 1

LOWER COST OPTION

Increase capacity to support current enterprise applications support services

Approach:

- Source: Backfill application support responsibilities through recruiting, contractors or third party
- Deploy current employees to the project to build skills and capabilities to prepare for sustainment
- Attend SAP S/4HANA training in preparation for the project where required
- Short term solution

Considerations:

- Develop resource retention plan for key resources
- Determine whether to retain and upskill managers or hire managers with S/4HANA credentials and experience

Option 2

Hire experienced S/4HANA resources to support the project and subsequent sustainment

Approach:

- Source: Recruiting
- Current staff support existing SAP ECC application support services
- Long term solution

Considerations:

- Determine whether to retain and upskill managers or hire managers with S/4HANA credentials and experience
- Implement a transition staffing strategy; include managing team morale, severance and other indirect costs
- Consider recruiting salary expectations for experienced S/4HANA resources and impact to overall staffing budget

Option 3

NOT RECOMMENDED

Engage System Integrator (SI) to support project

Approach:

- Source: SI deployed to the project for build related activities
- Current staff support SAP ECC application support services
- SI transitions to current staff and provides knowledge transfer sessions prior to the end of hypercare
- Short term solution

Considerations:

- Capacity for current employees to participate in extensive SAP S/4HANA knowledge transfer sessions prior to the end of hypercare while maintaining SAP ECC application support services

Addressing the Skills Gap
Resourcing Options for Business Groups

Halton has multiple options to source capabilities - part time process owners who have deep experience with Halton business processes or full time process owners who have expertise with S/4HANA. The selected option should align to Halton's Talent strategy, budget and long term plans. Due to competition for talent and recruiting costs Halton may want to build capability in existing resources.

LOWER COST OPTION

Option 1

Backfill some primary role responsibilities to create sufficient capacity to support the project and sustainment

Approach:

- Deploy employees who are currently subject matter experts to the project to build skills and capabilities to prepare for sustainment
- Attend SAP S/4HANA training in preparation for the project
- Long term solution

Considerations:

- Upskilling plan for primary role responsibilities being transitioned to other resources

Option 2

Recruit S/4HANA process owners to support the project and sustainment activities

Approach:

- Current Business staff supports business process and activities associated with existing SAP ECC business processes
- Design full time process owner jobs
- Long term solution

Considerations:

- Assessing capacity levels based on expected work effort per sustainment activity (process owner, training, continuous improvement etc.) to determine FTE in sustainment

NOT RECOMMENDED

Option 3

Maintain capacity and support the project

Approach:

- SI deployed to the project for business activities
- Current Business staff supports business process and activities associated with existing SAP ECC business processes
- SI transitions to current staff and provides knowledge transfer sessions prior to the end of hypercare

Considerations:

- Capacity for extensive knowledge transfer sessions while maintaining legacy existing SAP ECC business processes

Recommendation: Addressing the Skills Gap
Learning Journey for IT and Business Resources

In support of Option 1 where existing Halton resources are upskilled for the S/4HANA capabilities and knowledge, the following learning journey can be applied. Specific courses listed in the subsequent slides can be assigned to IT resources and process owners.

In Preparation For

1. Empower the team for change:

Discuss with the team their role, project objectives and timeline and where they are empowered to make decisions. Create an environment and support for open dialogue to encourage resiliency and recognize and address change resistance. Plan for and track vacations.

2. Build internal SAP knowledge to partner effectively with your SI:

Complete S/4HANA eLearning offered by SAP focused on foundational skills at the overall system and modules level. Access the SAP system trial to explore the system.

3. Equip the team to respond to business and internal needs:

Complete self-directed learning focused on key common skills - Creative Thinking and Problem-Solving, Conflict Resolution, Emotional Intelligence and Training Others.

Build, Realize & Test

1. Learning at the individual level:

Learn how to perform specific tasks, functions, configuration settings by completing off the shelf S/4HANA eLearning and job relevant training paths offered by SAP. Practice and apply learning in the SAP system trial version and test environments.

2. Learning as a team:

Learn on the job through driving the project. Team members follow their knowledge transfer plan, engaging in guided experience by subject matter experts, job/task shadowing and reverse shadowing, partnered work, workshops and cross training.

3. Mastering skills through performance-oriented certifications:

Complete S/4HANA certifications offered by SAP aligned to post deployment roles and jobs to optimize performance and innovation.

Deploy and Run

1. Measure progress to identify and close skill gaps:

Analyze system and user experience data to properly identify issues. Identify corrective training and coaching mechanism to address gaps at the individual employee or team level. Leverage off the shelf S/4HANA eLearning or on the job guided support.

2. Updating procedures and training material based on deployment experience:

Engage IT/Business team members in content updates. Develop learning paths plans for new joiners.

3. Maintain and upgrade skills:

Continue leveraging S/4HANA eLearning offered by SAP and relevant SAP certifications. Identify and position subject matter experts within the team to provide workshops on system patches and releases.

Recommendation: Addressing the Skills Gap
Recommended Specialized SAP S/4HANA Courses

Resources from IT and Business groups supporting the project can take the following relevant SAP courses as foundational learning prior to the Build phase.

These courses are provided by SAP and accessed through SAP's Learning Hub. Training methods include instructor led training (in-person and virtual), self-paced training and SAP Learning System Access for hands-on practice.

Course	Modality	Duration	Prerequisite
1. S4H00 - SAP S/4HANA Overview	Classroom, Virtual Training	► 3 days	Basic business administration/process knowledge required
2. S4130 - Business Processes in SAP S/4HANA Asset Management	Classroom, Virtual Training	► 5 days	► S4HOO
3. S4F00E - Overview of Finance in SAP S/4HANA	eLearning	► 480 hours	General knowledge of business processes in financial management
4. S4F60 - Overview SAP S/4HANA for Central Finance	Classroom, Virtual Training	► 1 day	Basic knowledge of Finance in SAP ERP or SAP S/4HANA
5. S4F10 - Business Processes in Financial Accounting in SAP S/4HANA	Classroom, Virtual Training	► 5 days	Accounting Knowledge
6. S4F55 - SAP Revenue Accounting and Reporting	Classroom, Virtual Training	► 5 days	S4F10
7. S4F20 - Business Processes in Management Accounting in SAP S/4HANA	Classroom, Virtual Training	► 5 days	Management Accounting Process Knowledge
8. S4500 - Business Processes in SAP S/4HANA Sourcing and Procurement	Classroom, Virtual Training	► 4 days	Knowledge about business processes in sourcing and procurement
9. S4600 - Processes in SAP S/4HANA Sales	Classroom, Virtual Training	► 4 days	S4HOO

Recommendation: Addressing the Skills Gap
Recommended Specialized SAP S/4HANA Courses

Course	Modality	Duration	Prerequisite
10. S4601 - Business Processes in SAP S/4HANA Supply Chain Execution	Classroom, Virtual Training	► 3 days	S4H00
11. S4700 - Business Processes in SAP S/4HANA Service	Classroom, Virtual Training	► 3 days	None
12. SAPTEC - Technology Fundamentals for SAP S/4HANA and SAP Business Suite	Classroom, Virtual Training	► 4 days	Knowledge of Information Technology
13. ADM100 - System Administration I of SAP S/4HANA and SAP Business Suite	Classroom, Virtual Training	► 5 days	SAPTEC Basic knowledge of operating systems and database
14. ADM103 - System Administration II of SAP S/4HANA and SAP Business Suite	Classroom, Virtual Training	► 4 days	ADM100
15. ADM110 - Installing and Updating SAP S/4HANA and SAP Business Suite Systems	Classroom, Virtual Training	► 4 days	SAPTEC ADM100
16. ADM325 - Software Logistics for SAP S/4HANA and SAP Business Suite	Classroom, Virtual Training	► 5 days	ADM100
17. ADM - SAP S/4HANA Conversion and SAP System Upgrade	Classroom, Virtual Training	► 5 days	ADM325
18. ADM329 - SAP S/4HANA Downtime Optimized Conversion	Classroom, Virtual Training	► 2 days	ADM328 Experience with the Software Update Manager
19. ADM415 - SAP S/4HANA – Performance Analysis (successor of ADM315)	Classroom, Virtual Training	► 4 days	SAPTEC ADM100 Basic knowledge of Linux and SAP HANA

Recommendation: Addressing the Skills Gap
Recommended Specialized SAP S/4HANA Courses

Course	Modality	Duration	Prerequisite
20. ADM940 - Authorization Concept for SAP S/4HANA and SAP Business Suite	Classroom, Virtual Training	► 3 days	SAPTEC
21. ADM945 - ADM945 – Authorization Concept for SAP Fiori on SAP S/4HANA	Classroom, Virtual Training	► 2 days	ADM940
22. E2E040 - Manage digital transformation with SAP Solution Manager	Classroom, Virtual Training	► 3 days	Fundamentals of SAP Systems and SAP Application Lifecycle Management Basic understanding of ITIL (IT Infrastructure Library) V3
23. E2E600 - Implementation Projects with SAP Solution Manager 7.2	Classroom, Virtual Training	► 5 days	EDE040
24. E2E120 - Technical Monitoring in SAP Solution Manager	Classroom, Virtual Training	► 5 days	SM100
25. E2E220 - Test Management Overview	Classroom, Virtual Training	► 3 days	None
26. SM100 - SAP Solution Manager Configuration for Operations	Classroom, Virtual Training	► 5 days	ADM100
27. SM250 - IT Service Management Configuration Virtual Class	Classroom, Virtual Training	► 5 days	None
28. SM255 - Change Request Management with SAP Solution Manager - Configuration	Classroom, Virtual Training	► 5 days	SM100

Recommendation: Addressing the Skills Gap
Recommended Specialized SAP SuccessFactors Courses

Course	Modality	Duration	Prerequisite
29. HRSF1 - Explore SAP SuccessFactors Solutions	Classroom, Virtual Training	► 2 days	None
30. THR80 - SAP SuccessFactors Platform Introduction	Classroom, Virtual Training	► 5 days	None
31. SF2 - Run Simple HR with SAP SuccessFactors Employee Central	e-learning	► 18 hours	None
32. THR81 - SAP SuccessFactors Employee Central Core	Virtual Training	► 13 days	THR80
33. HR110 - Business Processes in HCM Payroll	Classroom, Virtual Training	► 2 days	None
34. HR050 - Business Processes in Human Capital Management	Classroom, Virtual Training	► 5 days	None
35. HR305 - Configuration of Master Data	Classroom, Virtual Training	► 5 days	HR050
36. HRH65 - SAP SuccessFactors Payroll Control Center	Classroom, Virtual Training	► 5 days	HRSF1, HR110, HR305
37. HR800 - SAP SuccessFactors Platform Administration	Virtual Training	► 3 days	None
38. HR812 - SAP SuccessFactors Employee Central Payroll Administration	Classroom, Virtual Training	► 2 days	HR800
39. HRH60 - SAP SuccessFactors Integration with Employee Central Payroll	e-learning	► 3 hours	None

Recommendation: Addressing the Skills Gap
Knowledge Transfer (KT) Methodology

Halton should utilize a formal Knowledge Transfer methodology to effectively build capability during the Design, Realize Build and Realize Test phases in preparation for sustainment. The implementation partner will be key knowledge owners and should take responsibility for defining knowledge transfer plans.

Knowledge Transfer Methodology

Identify knowledge requirements/objectives and participants

- Conduct KT gap analysis and identify core skills required.
- Identify staff involved in KT scheme; obtain their commitment to participate; create KT Plan.
- Core team and managers/supervisors agree to overall KT Plan.
- Measure current knowledge and core skills competence of staff through self-assessment.

Develop Knowledge Transfer plan, tracker and Champions

- Select enablers:
  - Shadowing/reverse shadowing
  - 1:1 Coaching
  - Review Documentation
  - Hands-on Practice
  - SAP S/4Hana eLearning, formal workshops/certifications
  - Conduct System Integration Testing
  - Review Logs/Defect Tracker
- Establish a baseline assessment of the participant's proficiency for each focus area.
- Develop KT Tracker.
- Assign Knowledge Champions to:
  - Work with staff to develop individual KT plans
  - Manage the execution of KT process and monitor progress.

Identify metrics and track progress

- Dedicate time in the project plan for KT activities and progress reviews.
- Use KT Tracker to monitor progress against KT activities and skill development.
- Escalate issues and make recommendations for corrective actions from the KT measurements.
- Compare original self-assessment with post KT assessment.

Measure outcomes and address Knowledge Transfer gaps

- Knowledge Champion conducts regular Knowledge Transfer checks throughout the project to ensure effectiveness of the process and approach and to measure progress against plan.
- Communicate status and outcome of KT progress with Sr. Leadership to determine if KT was successful and staff are prepared to support implementation and steady state.
- Incorporate learnings in future phases to continuously improve the KT process (outcome focus).

Recommendation: Addressing the Skills Gap

Shifting from Receiving Knowledge to Owning the Solution

Effective on-the-job coaching

See
Shadow SI undertaking design, build, test and defect resolution activities.

Do
Perform activities through reverse shadowing, undertaking roles and responsibilities otherwise delivered by SI.

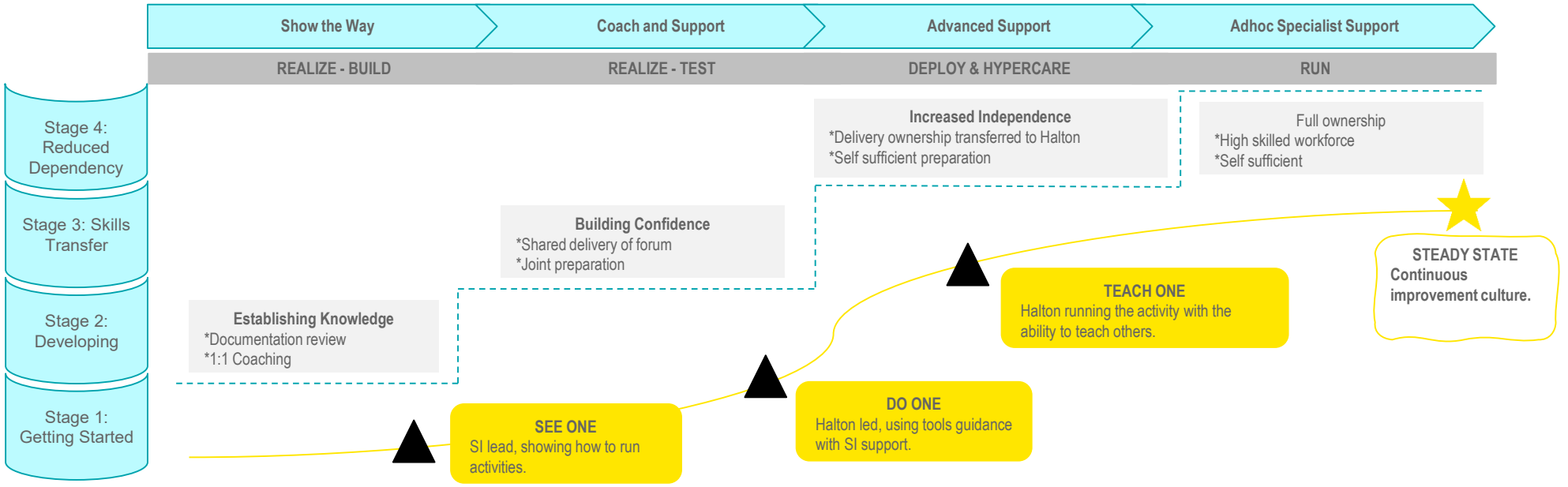
Teach
Train a colleague on how to undertake activities supported by the SI.

Record
Capture and document learning, data sources, systems and modelling guides, tools and techniques applied.

Knowledge Transfer accelerators

- Pairing individual Halton Application Support team members with SI team members to agree 1:1 coaching plan and cadence of sessions.
- Delivering SAP and change management training courses developing technical and interpersonal skills.
- Sharing lessons learnt from other areas, projects, hubs, etc.
- Organizing knowledge sharing and collaboration team events, e.g., lunch and learn sessions.
- Facilitating workshops and seminars to engage broader stakeholders.
- Providing on-going feedback informally and formally during reverse job shadowing.

See one, do one, teach one, record one approach



Recommendation: Addressing the Skills Gap
Sample Knowledge Transfer (KT) Plan

- Each project team or sustainment team member has their own plan
  - Customized for the role of each person
  - Focus areas, capabilities, criteria, and methods of knowledge transfer, have been populated but should be edited to fit the role of the person
- KT Plans should be developed process area and for all aspects of sustainment
  - E.g. Core Team, Data/BI/Reporting, RTR, PTP
- The KT owner is the implementation project subject matter expert
- KT plans should be complete pilot to transition to sustainment and completion of hypercare

Project <NAME> - Knowledge Transfer Plan (IT)

For:

Workstream: RTR

Deployment: Financials

Last Updated:

Reviewer:

Knowledge Area *(List the capabilities, skills or concepts, that exist within each domain: 2 - 4 max)*	Knowledge Owner *Identify the resource(s) that will transfer the knowledge*	Knowledge Transfer Method *List the processes or activities that will enable the acquisition of the desired capabilities, skills or concepts*	Status *Has the knowledge transfer started, is it ongoing or has it been completed?*	Completion date *If the knowledge transfer has been completed, when was it completed?*
Project Process				
Project Methodology - Planning and scoping		Participate in Project Kick-off	Completed	
Project Methodology - High Level Design		Support and operations guides, detailing regular Standard Operating Procedures (SOPs) with concise documentation on how to perform those activities in the environment	Completed	
		Participate in Collaboration Hub Kick-Off	Completed	
Project Methodology - Detailed Design		Participate in Detailed Design Kick-Off	Completed	
Project Methodology - Build		Participate in Build Kick-Off	Completed	
Project Methodology - Test		Participate in Test Kick-Off	Completed	
Project Methodology - Deployment		Participate in cutover planning and preparation	Not Started	
Project Methodology - Support		Participate in Hypercare Kick-Off	Not Started	
Business Process				
Managing Financial Central Interim State		Participate in Collaboration Hub, Configuration Workbooks, Playback sessions, unit testing, SIT scenario draft/review, SIT shadowing, UAT, defect resolution	In progress	
[R-01-01] – Enter, Validate and Post Journal Entries		Participate in Collaboration Hub, Configuration Workbooks, Playback sessions, unit testing, SIT scenario draft/review, SIT shadowing, UAT, defect resolution	In progress	
[R-03-18] – Process Accruals		Participate in Collaboration Hub, Configuration Workbooks, Playback sessions, unit testing, SIT scenario draft/review, SIT shadowing, UAT, defect resolution	In progress	
[R-01-02] – Process Prepaids		Participate in Collaboration Hub, Configuration Workbooks, Playback sessions, unit testing, SIT scenario draft/review, SIT shadowing, UAT, defect resolution	In progress	
[R-01-03] – Process Recurring		Participate in Collaboration Hub, Configuration Workbooks, Playback sessions, unit testing, SIT scenario draft/review, SIT shadowing, UAT, defect resolution	In progress	
[R-03-19] – Reconciliation of Balance Sheet Accounts		Participate in Collaboration Hub, Configuration Workbooks, Playback sessions, unit testing, SIT scenario draft/review, SIT shadowing, UAT, defect resolution	In progress	
[R-03-20] - Allocations Setup		Participate in Collaboration Hub, Configuration Workbooks, Playback sessions, unit testing, SIT scenario draft/review, SIT shadowing, UAT, defect resolution	In progress	
[R-03-21] - Allocations Execution Runs		Participate in Collaboration Hub, Configuration Workbooks, Playback sessions, unit testing, SIT scenario draft/review, SIT shadowing, UAT, defect resolution	In progress	
[M-03-22/23] - Manage Operational/Plant Period, Mont & Year End Close		Participate in Collaboration Hub, Configuration Workbooks, Playback sessions, unit testing, SIT scenario draft/review, SIT shadowing, UAT, defect resolution	In progress	
SAP sandbox and development systems				
Participate in the migration of the existing SAP sandbox and development systems to corresponding SAP HEC environments with the assistance of SAP HEC. Perform and document a technical test to confirm proper migration. Decommission legacy		Provide input, review, provide feedback, and sign off the deliverables.	Not Started	
SAP enterprise landscape				
Participate in the migration of the existing SAP sandbox and development systems to corresponding SAP HEC environments with the assistance of SAP HEC. Perform and document a technical test to confirm proper		Provide input, review, provide feedback, and sign off the deliverables.	Not Started	

Skills Gap Assessment and Recommendations

3. Strategic Alignment and Governance for Project Delivery and Sustainment

- A primary recommendation to address the skills assessment is to reinforce and enhance the capabilities required to support S/4HANA. At the same time, additional capacity is required to support the existing ECC solution, participate in the S/4HANA driven transformation, and sustain that future solution

- Components of this recommendation include:
  - Resourcing options to build capacity and capability in IT, process owner and SMR groups
  - Learning journey, including SAP training and project knowledge transition

Recommendation: Strategic Alignment

Our analysis and assessment indicates current strategies are not widely understood, preventing a clear, unified vision of the future. Leadership should align and clearly state how Halton's Digital Strategy is tied to overall business objectives. The Digital Strategy, business and functional strategies and Halton's overall long-term journey should be integrated to allow for an easier journey and resource (money and talent) management.

Align Digital Strategy and Supporting Strategies

- Ensure IT and Business leaders are aligned on Halton's strategic goals and path to achieve them
- Align leadership on the need for change and gain consensus on the future technology direction and plan based on the Digital strategy
- Design a detailed implementation plan for a 3–5 year roadmap based on the Digital strategy
- Establish an IT Application Management strategy and approach
- Refine KPIs for management roles to include SAP Transformation

Establish Governance
Recommendation: Establish Governance Framework

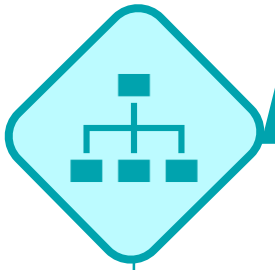
Halton should implement an effective permanent governance framework for sustainment focused on ownership, oversight, and documentation, providing sound risk management across the organization.

Establish Strategic Governance and Product Governance

- Develop governance framework documented, agreed and in operation
- Set up central program management and decision making bodies
- Align functions, capabilities and people to promote governance and synergies
- Centralize and establish a formal repository for documentation

Establish Governance
Recommendation: Establish the S/4HANA Centre of Excellence (CoE)

To support a strong governance framework, and to continuously improve the quality of service and delivery of SAP S/4HANA, Halton should establish a Centre of Excellence (CoE), aligning IT and Business groups across the organization.

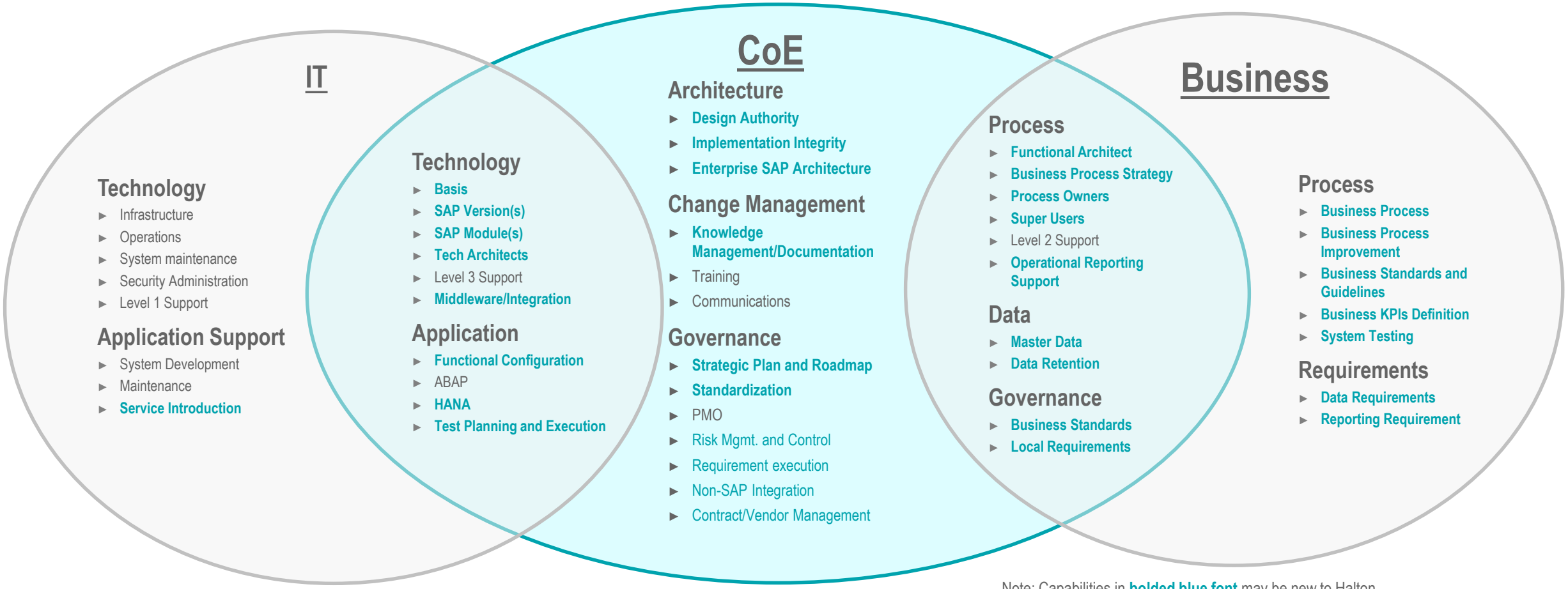


Establish Centre of Excellence (CoE)

- Set Enterprise Architecture standards and policies to support solution architecture, technology implementations and business outcomes
- Gain alignment on enterprise-wide technology needs to strengthen governance and architecture standards
- Assess the organization's structure to support the CoE so that the reporting lines, spans, and layers support and drive the right partnership behaviors
- Set the tone from the top, align leadership on the behaviors and cultural norms needed to drive CoE and the implementation of a new ERP
- Identify talent gaps in CoE critical functional areas and recommended next steps

Establish the S/4HANA CoE
S4/HANA Implementation and Operations Capabilities

A key part of sustainment is determining which functions reside within the support organization versus IT and the business. The following diagram identifies functions and capabilities in Halton's potential CoE.



Note: Capabilities in **bolded blue font** may be new to Halton.

Recommendation: Establish the S/4HANA CoE
Key CoE Roles and Responsibilities

Halton's SAP CoE needs to have roles and capabilities to support delivery of emerging business capabilities (driven by business strategy and external requirements), assessment and application of SAP functionality (driven by SAP releases). The roles and responsibilities provided as part of the Halton Project resourcing plan will transition to the CoE. Additional responsibilities are listed below. These key roles would function as a well integrated team with in-depth knowledge & practical experience to work together throughout this transformation journey. Impacts to Halton's org structure, capacity, staffing and capabilities will need to be periodically re-evaluated post *Run* state as FTE needs may change over time as HR, Finance, IT and other business units mature.

CoE Functional Area	CoE Role	Additional CoE Responsibilities
IT	IT Lead	► Provides vision, strategy, guidance, and direction for the CoE ► Sponsors the implementation of application integration and business process changes with IT and Business Leads ► Develops and prioritizes the project portfolio of CoE opportunities; receives approvals from governance boards ► Meets with governance boards to discuss agendas, schedules, actions items, etc. ► Reviews with the governance board CoE project plans, schedules, budgets, statuses ► Manages CoE personnel (head count, budget, development, etc.,)
IT	IT SMRs	► Provides SAP technical and business expertise in the analysis of business needs ► Recommends solutions to meets internal goals and business requirements ► Supports technology aspects of the business requirements gathering sessions ► Translates business needs into technical requirements

Recommendation: Establish the S/4HANA CoE
Key CoE Roles and Responsibilities

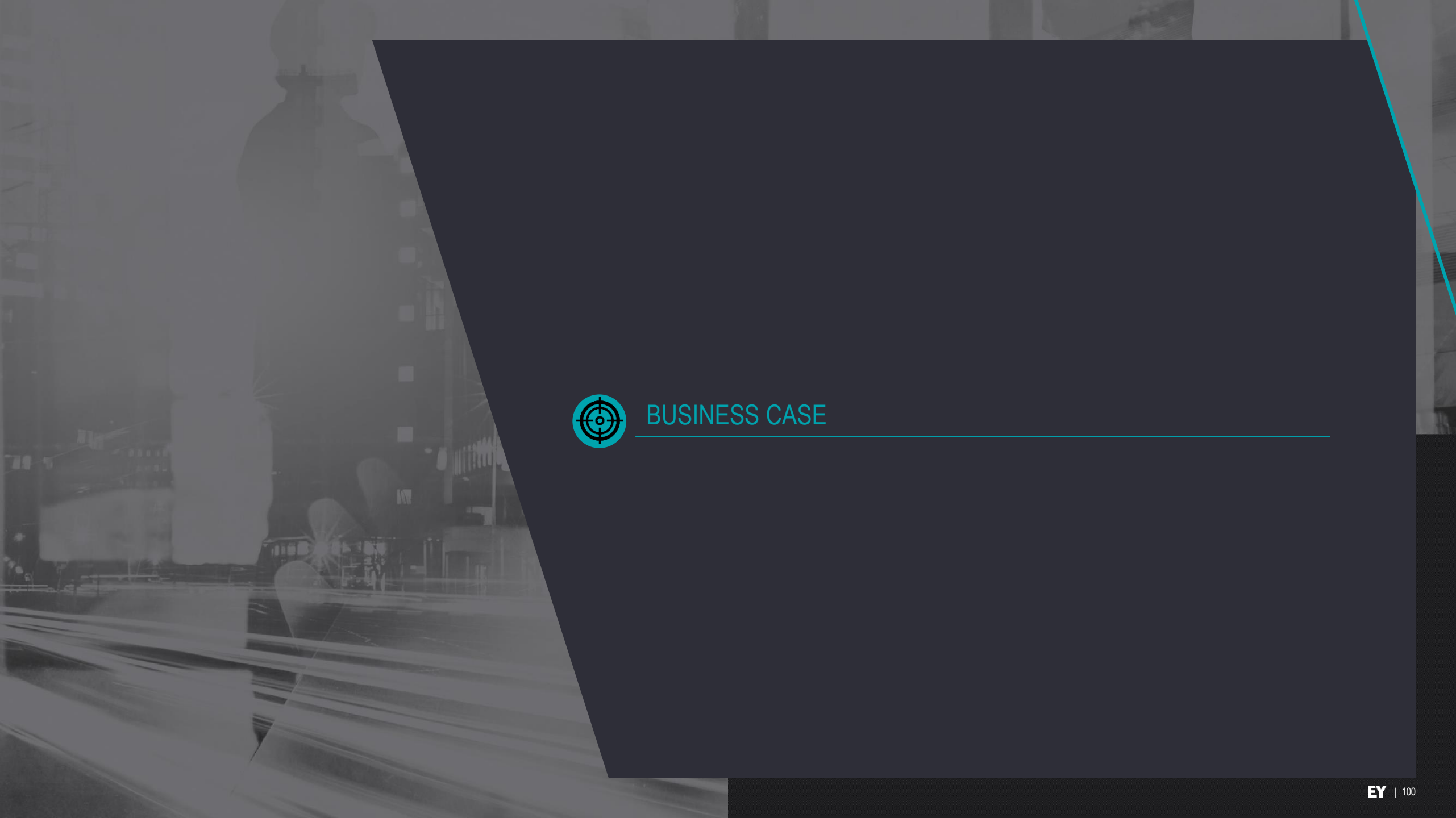
CoE Functional Area	CoE Role	Additional CoE Responsibilities
IT	Solution Architect	► Provides consultation directly to IT and business leadership around suite of applications ► Participates in the design of new technical solutions based upon business requirements ► Analyzes emerging technologies, influences technology decisions and direction of project solutions to increase productivity and performance
CoE	Change Lead	No additional capabilities required to support CoE
CoE	Training Lead	No additional capabilities required to support CoE
CoE	Project Manager	► Manages program budget development & monitoring; working w/ multidisciplinary teams – Change Mgmt. Technical, Functional, etc.) ► Tracks program financials (budget vs. actual) ► Develops the program approach to Benefits Realization Mgmt. (opportunity identification, assignment of accountability, monitoring)
CoE	Program Administrator	► Supports continued implementation, development, and expansion of SAP projects, processes and best practices ► Analyzes project information (timeline, cost, quality) and creates custom reports for PMO Manager ► Builds cost models for projects in Excel ► Builds forecasting models for future projects ► Builds approved project plans in SAP Project Systems and works with fixed assets to budget, release and initiate them

Recommendation: Establish the S/4HANA CoE
Key CoE Roles and Responsibilities

CoE Functional Area	Project Role	Additional CoE Responsibilities
CoE	Security and Controls Lead	► Implements and supports the governance processes for SAP (e.g., to make sure SAP projects are aligned with architecture standards and guidelines) ► Works with governance bodies to ensure SAP program's alignment ► Works with project teams to consult and provide guidance on SAP governance processes ► Assists with project prioritization and rollout strategy
Business	Business SMRs	► Performs elicitation, analysis and documentation of requirements in support of SAP development projects ► Assists the design analysts with the translation of business requirements into functional design specifications ► Interfaces with business users and follows up with the action item owners to get feedback ► Provides onsite and remote support to help resolve End User issues ► Escalates End User issues and change requests to the appropriate level ► Logs End User issues ► Helps process and manage change requests ► Communicates to colleagues answers, resolutions of issues, and work-arounds on system changes ► Attends training to stay up to date on SAP changes, fixes, new functionality, best practices, etc.

Recommendation: Establish the S/4HANA CoE
Key CoE Roles and Responsibilities

CoE Functional Area	Project Role	Additional CoE Responsibilities
Business	Business Process Owners	► Maintains and keeps up to date on SAP knowledge repository/tools ► Develops and maintains best practices, standards and guidelines ► Communicates best practices, standards and guidelines to project teams and appropriate stakeholders as required ► Defines knowledge transfer practices ► Conducts knowledge transfer to project teams and the business on usage and functionality of SAP ► Analyzes and prioritizes detailed requirements and work to be done on developing functional design specifications ► Explore opportunities to reduce efforts on low value activities ► Assess application process reports to identify opportunities for improvement ► Conduct impact analysis on changes ► Participates in business process analysis and design, including testing, training and support procedures ► Identifies opportunities for process improvement, co-ordinates and implements automated solutions around routine / repetitive tasks ► Create key monthly and weekly reports required for multiple business stakeholder groups ► Provide insight to users and business management on trends identified in data



BUSINESS CASE

Business Case
Why do we need to do this now?

Halton Region engaged EY to conduct an assessment of the Region's People and Money processes to identify opportunities for modernization and digitization as part of the Halton Region Digital Strategy.

- Through the Current State Assessment and Visioning Workshop, it was apparent that the Region's system capability gaps are well established and need to be addressed as the Region moves towards realizing the Digital Strategy:

"Many of the Region's core process are heavily labour intensive"

"Many SAP modules have been implemented but they are not being used fully or effectively utilized"

"Lack of standard best practices in place for current procedures"

- It takes enormous effort to do the things we want to, and need to be able to do to operate and manage our Region, and that is only going to get harder as we continue in this period of tremendous uncertainty which is likely to last for the foreseeable future. The Digital Strategy is our opportunity to:

"Transform our financial management capabilities and substantially increase our maturity"

"Enhance our financial decision-making capacity through increased use of analytics and analytical solutions"

"Increase automation and efficiency in processes to drive better staff experiences"

Business Case
Why spend to transform SAP capabilities?

The key benefits of undergoing a transformation are re-emphasized here:

1. Process simplification and increased automation for repetitive tasks and processes will reduce manual effort and allow for a shift to more business value-add activities.
2. Increased data standardization and moving towards a more data-centric organization will enable better decision making with data driven insights.
3. Improved resident and employee experience to provide an integrated service delivery and increase agility to respond to changing needs.
4. Becoming a more Agile Workforce with flexibility in how employees can self-service and access information through cloud based deployment and respond in multiple ways in meeting our customers' needs.
5. Achieving Operational Excellence by optimizing our business processes and adopting leading practices and technologies in order to create a sustainable platform for continuous improvement.
6. This transformation will serve as an investment in the organization by continuously building digital capabilities in cloud deployed solutions on top of existing institutional knowledge.
7. End users know how to use and support SAP.
8. Although this is a greenfield deployment in terms of how the processes will be implemented, not all processes are being changed. Where there are some being remediated, it is to address critical pain points in the current processes.
9. Maintenance efforts (e.g. security and development) will continue with minimal change.
10. Alignment to Halton Region's digital strategy in Service and Process Transformation – shifting Halton Region to a product management approach for major systems and laying out the work plans for its major platforms:
    I. A major SAP Transformation Program to modernize and automate Halton Region's Financial and Human Resources processes.
    II. Work and Asset Management systems and process review.
    III. An Application Rationalization Program to reduce Halton Region's technology footprint and simplify its environment.

Business Case
Options Analyzed

A number of deployment options were considered for implementation, with the recommended option of alleviating all categories of pain points and prioritizing the maximization of benefits

Option 1

Address all pain points and all Must have, Should have and Could have requirements

Description:

- All pain points for Halton Region to be addressed.
- All requirements: Must have, Should have and Could have to be actioned and addressed.

Current processes are largely inefficient, there is a lack of best practice and many system modules are under-utilized. Adopting this approach will increase efficiency and maximize value for the Region.

Recommended option for the Region

Option 2

Address all pain points and Must have requirements (Must have requirements account for 70% of all requirements)

Description:

- All pain points for Halton Region to be addressed.
- Only Must have requirements to be address. Should have and Could have requirements to remain outstanding.

This option will address the critical inefficiencies and processes that are currently in place. However, some manual processes for non complex / low volume activities will remain in place for the Region.

Business Case

Benefit Opportunity: Expected Benefits and Value of Future TOM

The recommended Target Operating Model (TOM) option has the potential to create almost $41.7M* in benefits over the 15 year life of the S4/HANA implementation while creating over 16.5 FTEs worth of value added resource.

Option 1

Option 1: % Savings (benefits) through: Agile workforce, Automation, Data Standardization, Operational Excellence & Resident and Employee experience

Agile Workforce	**18%**
Automation	**21%**
Data Standardization	**27%**
Operational Excellence	**24%**
Resident and Employee Experience	**14%**
Benefit Total	**22%**
Value added resource (FTE effort)	**16.5**
$ Estimate - range	**$41.7 M***

⚠ **Recommended option for the Region**

Option 2

Option 2: % Savings (benefits) through: Agile workforce, Automation, Data Standardization, Operational Excellence & Resident and Employee experience

Agile Workforce	**13%**
Automation	**15%**
Data Standardization	**19%**
Operational Excellence	**17%**
Resident and Employee Experience	**10%**
Benefit Total	**16%**
Value added resource (FTE Effort)	**11.5**
$ Estimate - range	**$29.2M***

*Please note the estimated savings and capacity created are derived from industry benchmarks and therefore are high level and indicative.

Business Case
Future state benefits: Finance, HR & Plant Maintenance

Based on current state findings moving to Target State will allow the Halton Region to develop advanced state maturity while providing opportunity for release of FTE capacity.

Process Groups: Finance, HR & Plant Maintenance

Process owners:
- **Finance**
- **HR**
- **Plant Maintenance**

Complexity of project: High

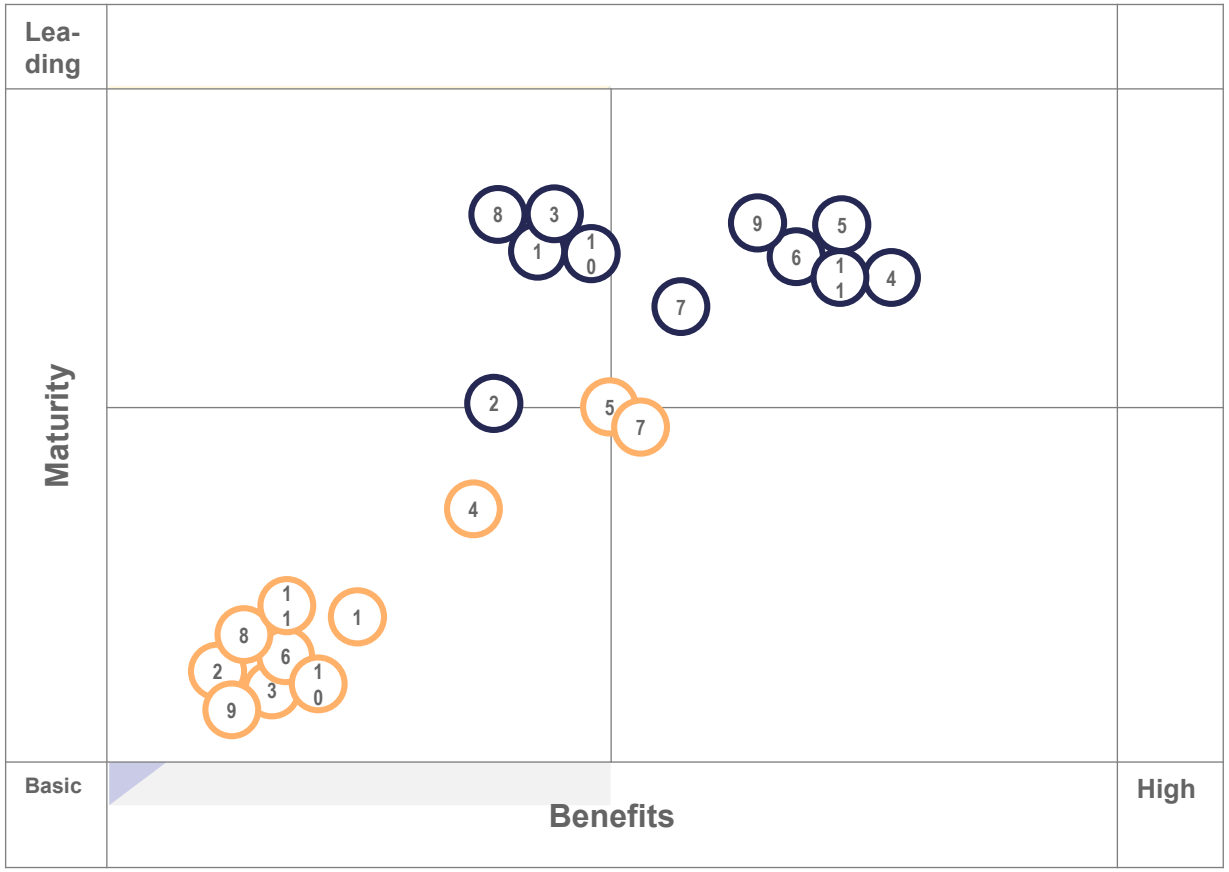
Rationale:
Current Maturity level and processes are low and require substantial manual effort.

Movement of Functional areas:
1 Procure to Pay
2 Order to Cash
3 Acquire to Retire
4 Enterprise Planning
5 Record to Report
6 HRIS and Position Management
7 Payroll
8 Benefits, Time, and Attendance
9 Talent Management
10 Recruiting and Onboarding
11 Manage Plant Maintenance

FTE/Time benefits estimation:
- Agile Workforce: 13% – 18%
- Automation: 15% – 21%
- Data Standardization: 19% – 27%
- Operational Excellence: 17% –24%
- Resident and Employee Experience: 10% – 14%
- Total: 16% – 22%

Value added resource: 11.5 to 16.5 FTEs

Additional qualitative benefits:
- Unlocking of SAP applications to be more utilized.
- Standardizing a number of processes in place and development of Halton Regions maturity model.



Legend: Current State Future State

Finance
Procure-to-Pay Overview

Technology Maturity Assessment

Current State

Desired Target State

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- End-to-end procure to pay process within one source system with improved integration and accuracy with inventory
- Workflow capabilities to provide better audit controls at various stages of the process
- Automated integration with banks to have real time information on payments and cheque encashment
- New technologies (i.e. Ariba) to support sourcing and contract management to help in better price negotiation or other service improvement opportunities.

Risk of execution: Medium

- Centralizing and automating these processes is medium risk and will require extensive testing both by Halton and external resources (i.e. Banks)
- Bank testing will require an additional buffer to be planned for to accommodate potential delays and/or rework of bank interfaces

Potential benefits: High

- Centralizing and automating requisitioning, invoice processing with OCR, AP, P-card admin, and exception handling is expected to drive large benefit opportunities in automation and operational excellence
- Data standardization is also anticipated
- Self-service capabilities will also increase

Finance
Order to Cash Overview

Technology Maturity Assessment

Current State | **Desired Target State**

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- To streamline and provide better analytics for billing and collections from customers, reducing the outstanding Receivables.
- Real Time integration for auto posting of collections and clearing of invoices
- Outstanding receivables can be systematically tracked using Dunning Functionality

Risk of execution: Low

- Order-to-Cash processes are largely lift-and-shift from current state with minimal process change

Potential benefits: Low

- Timely billing & collections from Customers and better analytics to track and lower DSO

Finance
Acquire to Retire Overview

Technology Maturity Assessment

Current State | **Desired Target State**

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- Improve the process and integration between projects and capitalization of assets along with proper classification of costs and capitalization value
- Utilizing Funds Management to get more visibility into the tracking of funds utilization
- Integration of asset acquisition through procurement (i.e.. purchase orders) to improve controls and approval of capital expenditure

Risk of execution: High

- Project Systems and Funds Management are net new modules that are generally complex for implementation and adoption
- Asset groupings and classification will require high-level of data cleansing

Potential benefits: High

- Ability for component-level tracking in the project life cycle and ability to correctly classify the tangible capital asset and costs
- Improve data quality for asset register and reconciliation to the equipment for maintenance

Finance
Enterprise Planning

Technology Maturity Assessment

Current State

Desired Target State

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- Common platform (SAP Analytics Cloud-Planning) will be utilized across the organization for budgeting
- Ability to perform trend analysis and detail planning and forecasting up to 10 years
- Workflows for budget approvals will be captured in the system instead of manual

Risk of execution: Medium

- New cloud application to be deployed in the subsequent releases
- Change impact to transition business from manual spreadsheets to a business application

Potential benefits: High

- Budgeting and planning will be executed within a business application and no longer in Excel
- System capabilities to support Halton in the detailed planning and lifecycle tracking during the budget cycles

Finance
Record to Report

Technology Maturity Assessment

Current State

Desired Target State

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- Streamline process and integrations with external systems to the General Ledger
- Activation of New GL functionality and parallel ledger will help in document splitting of business transactions for segment reporting
- Single Chart of Accounts and Controlling area will help streamline the master data maintenance process and also help to increase efficiency to daily operations
- Ability to automate intercompany eliminations and perform consolidations automatically

Risk of execution: Medium

- Standard implementation of core General ledger module
- Provision for pre-planning phase to support General ledger design and chart of accounts rationalization

Potential benefits: High

- Optimized chart of accounts aligned with S/4HANA best practices will improve analytics and cross-functional integrations
- Reduction of manual journal entries through automations
- Ability to store supporting documents with automated workflow to better support audit cycle
- Data standardization and ease of maintenance
- Improved efficiency with rationalized org structure

HR
HRIS & Position Management

Technology Maturity Assessment

Current State

Desired Target State

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- Core HR within Employee Central will streamline all HR related tasks with position control and workflows will ensure seamless Hire to Retire transactions in a cloud system.
- Integrations with other modules including Payroll, Recruiting, Onboarding, Learning and Performance Management. Dynamic Sync between Employee and Position ensures data validity and integrity at all times

Risk of execution: Low

- Standard implementation of SuccessFactors Employee Central

Potential benefits: Medium

- Common platform for employee and position data that will be integrated with other HR applications within SuccessFactors suite (i.e. Payroll, Recruiting, Learning and Performance Management

HR
Payroll

Technology Maturity Assessment

Current State

Desired Target State

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- Employee Central Payroll to offer optimized payroll experience with revamped payroll schema, integrated to Employee Central and Workforce Time an Attendance.
- Pre-built mashup screens to access payroll forms from within Employee Central offering seamless navigation between the two systems.

Risk of execution: High

- Payroll by default carries timeline risk as it will be critical to go-live at the beginning of the fiscal year
- Additional testing (parallel testing cycles) required to reconcile and prove payroll calculation in new system matches existing system

Potential benefits: High

- Renewal/revamp of payroll schema that is over 20+ years old and highly customized
- Review of existing infotypes and wage types to align with best practices
- Review of benefit structure and redesign

HR
Benefits, Time & Attendance

Technology Maturity Assessment

Current State

Desired Target State

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- Employee Central Global Benefits to offer one window operation from within Employee Central for Employee self-service and Manager self-service transactions for enrollment, updates and termination of benefits.
- Employee Central Time Off to replace CATS for in house time management (i.e.. vacation, sick time, etc.) while Workforce Time and Attendance to continue for all hourly work tracking while integrated to Employee Central Payroll

Risk of execution: High

- Integrations with S/4HANA for time tracking to ensure transfer of cost are captured correctly at cost object level
- Change management and training involved with central time tracking system
- Review of policies and validation rules for timesheet process

Potential benefits: High

- Streamline benefit processes with standard rules established
- Employee Self Service for benefit enrollments with approvals and notifications via workflow
- Consolidation of time tracking systems to a single system

HR
Talent Management

Technology Maturity Assessment — Current State — Desired Target State

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- System of record for goal setting, continuous feedback, performance appraisal, succession, development plan and career path all under one platform for a seamless user experience

Risk of execution: Medium

- Primarily lift-and-shift of current Learning to new SuccessFactors platform integrated with Employee Central
- Standard implementation of performance management module

Potential benefits: Medium

- Improve employee experience with standard performance appraisal cycle
- Ability to identify key positions and potential successors

HR
Recruitment & Onboarding

Technology Maturity Assessment

Current State

Desired Target State

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- Fully integrated system to align the process starting from Position creation in EC, sourcing and hiring candidates, a user friendly Onboarding experience to termination / retirement and offboarding

Risk of execution: Low

Context:

- Primarily lift-and-shift of current Recruiting to new SuccessFactors platform integrated with Employee Central
- Standard implementation of onboarding module

Potential benefits: Medium

Context:

- Process will remain largely unchanged with some new functionalities around onboarding

Plant Maintenance
Plant Maintenance

Technology Maturity Assessment

Current State

Desired Target State

Evaluation criteria	Basic	Developing	Established	Advanced	Leading
	► Some core internal activities are enabled by technology ► Platforms / systems are not integrated or coordinated ► Infrastructure to collect and maintain data is limited or non-existent ► Data is incomplete, inaccurate and/or dated	► Limited use of technology to enable tasks and activities; significant manual effort required ► Some integration of platforms across business areas ► Data is stored in silos, employees submit manual requests to obtain validation to have access to data	► Systems / platforms are not yet fully integrated ► Tools and technology are deployed across the organization ► Data is stored in silos but is accessible to all personnel	► Processes are automated using standard ERP applications and integrations ► Data is highly dependable, complete and timely with some inconsistencies ► Data management governance is defined but applied inconsistently	► Technology used to drive integration and coordination of all activities. ► Data infrastructure is leading ► Leading edge tools and technologies enable effective/efficient processes

Target State Summary:

- Ability to easily collect and analyse data to improve asset reliability, maintainability and lifecycle costs.
- Planning, executing and controlling proactive and reactive work in the water, and wastewater treatment plants.
- Utilizing plant maintenance for fleet (EF&F)

Risk of execution: Medium

- High level of effort and alignment around equipment and material master data
- Reimplementation of planning/MRP process and adopting standard best practice to handle accuracy of inventory data
- Introduction of warehouse management which will provide the region more granular level of information for inventory tracking

Potential benefits: High

- Accuracy inventory tracking and valuation
- Cleansed Material Master data that supports existing operational processes with automatic integrations to Finance

Business Case
SAP Licenses and Hosting Components

New / Replacement	Components	Quantity	Unit Price	Total	Comments
Replacement - SAP ERP Developer User (7002627)	S/4HANA Enterprise Private Cloud	12.0	521.00	6,252.00	
Replacement - SAP ERP Professional User (7002628)	S/4HANA Enterprise Private Cloud	211.0	521.00	109,931.00	
Replacement - SAP ERP Limited Professional User (7002629)	S/4HANA Enterprise Private Cloud	127.6	521.00	66,479.60	
Replacement - SAP ERP Employee User (7002630)	S/4HANA Enterprise Private Cloud	26.6	521.00	13,841.23	
Replacement - SAP Employee Self-Service Core User (7011043)	S/4HANA Enterprise Private Cloud	48.3	521.00	25,181.67	
Replacement - RWD InfoPak Complete Package (7002009)	SAP SuccessFactors - EC Payroll	4,501.0	6.45	29,031.45	
Replacement - BW 7.5	SAP BW/4HANA	1.0	500,000.00	500,000.00	➢ Approx. $500-650k per year
Replacement - SAP ECC ERP	SAP Group Reporting	19.0	4,181.00	79,439.00	
New – There is some overlap of the Office component with Halton's current Business Objects licensing	SAP Analysis Office	12.0	2,800.00	33,600.00	➢ $2,800 per month
New	SAP Ariba (contracts, procurement, invoicing, spend management)	1.0	350,000.00	350,000.00	➢ Approx. $350,000 - $500,000 per year
New	SAP Integration Suite	12.0	5,706.00	68,472.00	➢ $5,706 per month
New	SAP Asset Manager	48.0	143.00	6,864.00	➢ 48 staff initially up to 63 with contractors
New	SAP Concur	1.0	60,000.00	60,000.00	➢ $60,000 The approximate cost based on your estimated expense reports is 60-75k CAD/year
New	SAP Document Management Cloud	24.0	31.00	744.00	➢ This is an API service and the metric is 1 block of 50,000 API Calls at the price of $31CAD/mth per block of 50,000 calls (100,000 calls estimated)
New	SAP WCM - Work Clearance Management	1.0	52,452.00	52,452.00	➢ 80,000 minimum block $52,452 list price/year (1 unit is 80,000 block)
Replacement - SAP SFSF Learning (8005144)	SAP SuccessFactors - Learning Management System (LMS)	2,700.0	3.50	9,450.00	
Replacement - SAP SFSF Recruiting (8011740)	SAP SuccessFactors - Recruiting Management	1,500.0	3.50	5,250.00	
Replacement - SAP SFSF Onboarding (8011739)	SAP SuccessFactors - Onboarding	1,500.0	1.17	1,755.00	
New – (replace existing ECC CATS functionality)	SAP SuccessFactors - EC Time and Attendance, Employee Central, EC Benefits	4,501.0	8.02	36,098.02	
New	SAP SuccessFactors - Management Succession (Succession and Development) & Career Development Planning	2,700.0	2.55	6,885.00	
New	SAP SuccessFactors - Performance and Goals	2,700.0	4.56	12,312.00	
Replacement - RWD InfoPak Complete Package	SAP EnableNow			$150/user	
Total				**1,474,037.97**	

Business Case
General assumptions

The following general assumptions were applied to the business case financial analysis:

Assumption	Description
Cutover	➢ Cutover is assumed to occur at year end (calendar / fiscal year).
Backfill	➢ Roles that are filled by the Region would ideally be filled by a Manager or above that is knowledgeable about the business. Their roles would need to be filled by an external employee or with a current employee that would temporary fill their role. Union implications would need to be considered when backfilling any roles internally.
Licenses	➢ License costs have been provided by SAP via the Region.
FTE	➢ An FTE is assumed to work 35 hours / week.
Hours	➢ Annual hours = 1,820 (52 weeks x 35 hours).
Maintenance costs	➢ Maintenance costs for the ERP system were provided by the Region.
Salary including benefits	➢ Backfill – these are the annual salary including benefits costs of the role. ➢ Salary including benefits ranges were provided by Halton and were used in all resourcing costs and staff efficiency calculations.
Sustainment operating costs	➢ These are costs for the positions that would be required to be filled by Region to continue to support the ERP system after it is implemented.
Staff efficiency / productivity gains	➢ Based on a review by Finance Management Services department resources, there was an estimate created as to how many hours would be freed up for current resources to fulfill tasks that are currently not being completed or tasks that are not being completed in a timely fashion. While no full time positions can be eliminated, efficiencies create capacity within existing roles; these roles will need to be re-evaluated post-implementation to understand how positions or tasks could be changed to optimize workflow and what new, higher value tasks can be assigned. This provides an opportunity for cost avoidance as fewer additional employees will need to be hired as a result of implementing the new system. Please note the estimated savings and capacity created are derived from industry benchmarks and therefore are at a high level and indicative.

APPENDICES

Appendix A Definition of Terms
Appendix B Summary of dependencies
Appendix C Alternate Roadmap – Process View
Appendix D Alternate Roadmap - Timeline

Appendix A Definition of Terms

Acronym	Definition
BizX	SAP Business Execution
BPML	Business Process Master List
ECC 6	SAP ERP Central Component
EE	Employee
HCM	Human Capital Management
HRIS	Human Resources Information System
LMS	SAP Learning Management System
LTD	Long Term Disability
OFF	Offboarding
ONB	Onboarding
PMGM	Performance Management and Goal Management
RCM	SAP Recruiting Management
SI	System integrator

Acronym	Definition
RMK	SAP Recruiting Marketing
CoE	Center of Excellence
P-Card	Purchasing Card
SLA	Service Level Agreement
HCHC	Halton Community Housing Corporation
EFT	Electronic file transfer
ACH	Automated Clearing House
GL	General Ledger
EBS	Electronic Bank Statement
RBC	Royal Bank of Canada
IPFS	Infrastructure Planning Financial System
NSF	Non-Sufficient Funds
TCA	Tangible Capital Assets

Acronym	Definition
OPEX	Operational Expenditure
FIR	Financial Information Return
SCADA	Supervisory control and data acquisition
BW	Business Warehouse
MRO	Maintain, Repair and Overhaul or Operate
KPIs	Key Performance Indicator
BOM	Bill of Material
SF	SuccessFactors
WFM	Workforce Management
IDOC	Intermediate Document
CWIP	Capital Work in Progress
TOM	Target Operating Model

Appendix A Definition of Terms

Acronym	Definition
BI/BW	Business Intelligence / Business Warehouse
BIM	Building Information Modelling System
BSW	Budget Salary Worksheet
BTP	Business Technology Platform
F/S	Financial Statement
EBS	Electronic Bank Statement
ECP	Employee Central Payroll
O2C	Order to Cash
PM	Plant Maintenance
QM	Quality Management
RMK	Recruiting Marketing
SF	SuccessFactors
WCM	Work Clearance Management

Acronym	Definition
Z-Report	Non-Standard SAP Report

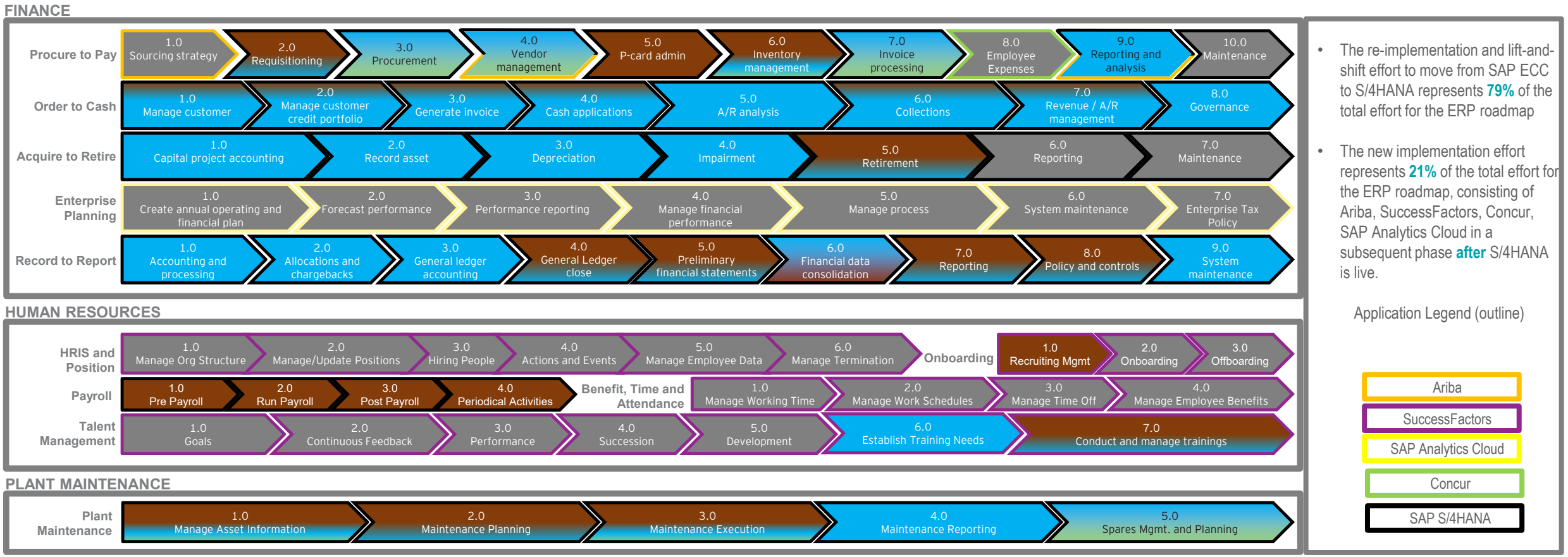
Acronym	Definition

Appendix B Summary of dependencies to achieve roadmap

Contracting	• Software procurement complete • Implementation partner is selected and contracting is complete
Capability & Capacity	• Complete pre-requisite training for project resources • Ensure project resource availability by backfilling and training resources • Staff project roles with those resources that understand Halton's business processes
Scope	• Create a clearly defined scope document • Follow strict change control processes from the beginning of the project
Decision Making & Governance	• Establish governance processes with clearly defined project roles and responsibilities • Ensure that resources seconded to the project have the authority to make key decisions regarding design • Identify stakeholders and ensure that they are part of the decision making process and/or informed of decisions being made throughout the project • Document decisions made • Pre-establish deliverable acceptance criteria with associated review and signoff timings that are incorporated into the project plan

Appendix C Alternate Roadmap - Process View

Many business processes will remain status quo if Halton decides to focus the first release on transforming current state SAP ECC processes and functionalities to S/4HANA only, deferring new applications (i.e. SuccessFactors, Ariba, Concur, etc.) to a later phase



- The re-implementation and lift-and-shift effort to move from SAP ECC to S/4HANA represents **79%** of the total effort for the ERP roadmap
- The new implementation effort represents **21%** of the total effort for the ERP roadmap, consisting of Ariba, SuccessFactors, Concur, SAP Analytics Cloud in a subsequent phase **after** S/4HANA is live.

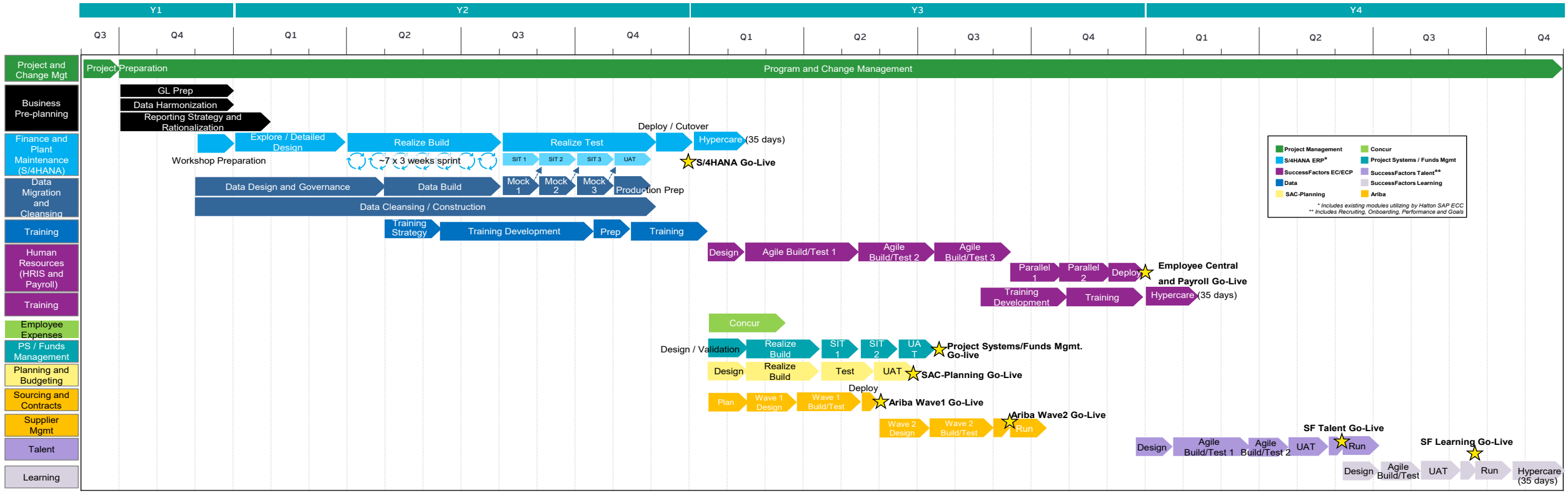
Application Legend (outline)

New implementation	Implementing a new application/module that Halton currently does not use	Status quo	Continue current manual process	Re-implementation	Re-implementing and/or re-designing the process to align with standard leading practices and to address pain points
Lift-and-shift	Lift-and-shift current configuration into new system with minimal to no changes to current process				

Appendix D Alternate Roadmap - Timeline

The timeline for the alternate roadmap extends the overall program from 2 years to 3 years by focusing the first release (approximately 14 months) on lift-and-shift of SAP ECC to S/4HANA with some process improvements. SuccessFactors Employee Central and Payroll will not be implemented until post S/4HANA Go-live.

An estimated increase of 16% in system integrator fee is expected due to extended timeline that will incur additional project management, change management, and implementation fees.



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