



# S/4 HANA Journey & EHS Story

ASUG Presentation

April 27, 2022



# SAP @ City of Mississauga

**1995**

**SAP Go Live – FI/CO & MM on R3**

**2005  
To  
2010**

**Migrated to ECC**

**Migrated PeopleSoft to HCM including Portal & EHS**

**2011  
To  
2014**

**ECC Enhancement Pack 6**

**Upgrade - BOBJ to 4.1**

**HR Processes & Forms on ESS & MSS**

# SAP @ City of Mississauga

**2015  
To  
2017**

Fiori – Leave, Timesheet, My Paystubs  
BObj to 4.2 & Lumira  
Concur - Expense

**2018  
To  
2019**

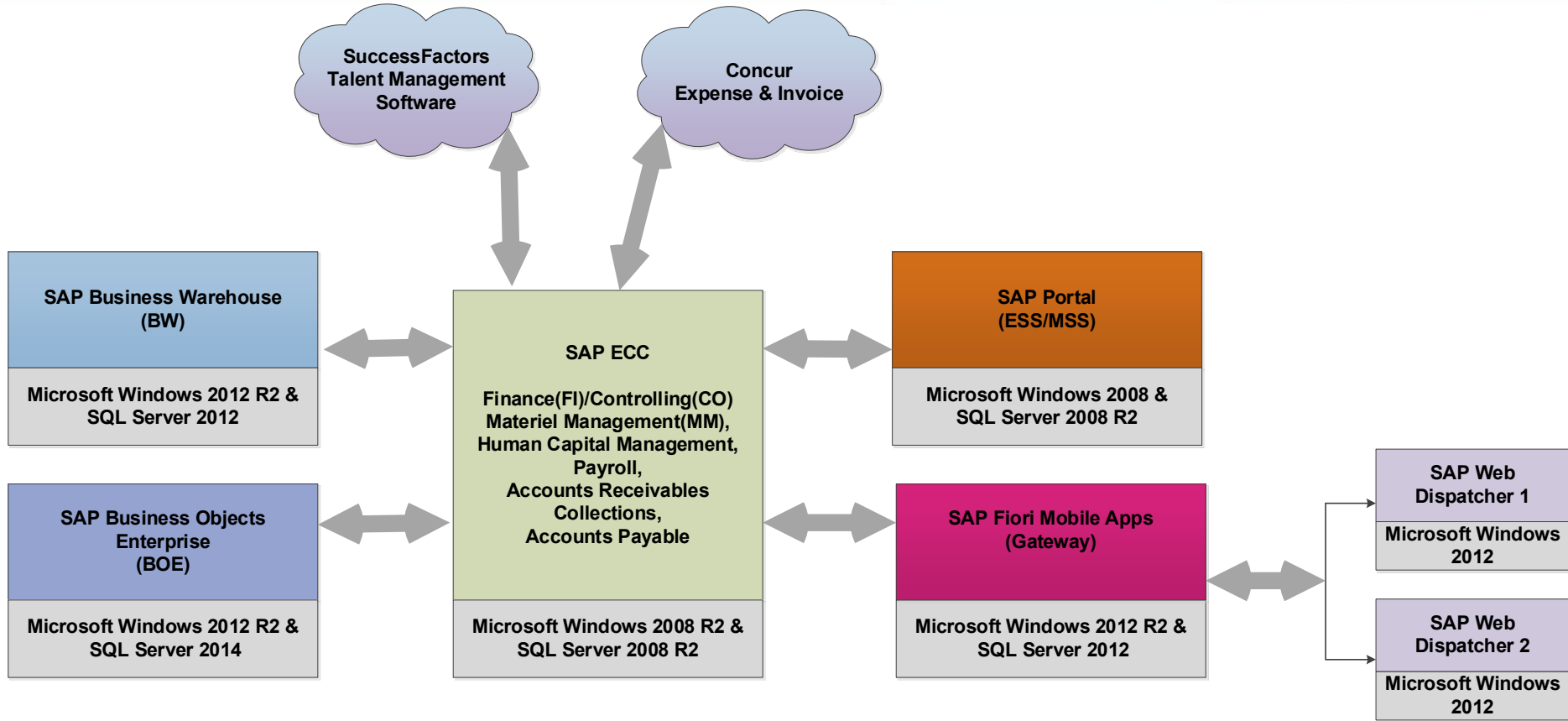
SuccessFactors – Career Development Planning, Recruiting,  
Onboarding, Performance & Goal Management and Succession  
Concur - Invoice

**2021**

S/4 HANA 1809  
Incident Reporting & Disability Claims Management

# S/4 HANA Implementation

# SAP Landscape – Pre-S/4 HANA



# S/4 HANA - Journey

## ← Pre-Requisites & Planning →

## ← Execution & Implementation →

2017 - 2018

- Initial Planning for S/4 HANA Migration
- Preliminary assessments and estimations
- Budget Planning

2019

- Budget Approvals
- Contract with SAP Professional Services
- Assemble dedicated City team (IT & Business SMEs)
- Data Cleansing (Simplification Item Checks)
- Implement Business Partners
- Prepare Test Cases
- Purchase Hardware
- S/4 HANA Project Kick-off - November

2020

- Project Planning – 6 cycles
- Enterprise Structure Assessment
- Issue RFP to replace EHS
- Infrastructure set-up for S/4 HANA
- Migrate - Test - Fix & Repeat!
- Fiori Apps Selection & Implementation
- Incident Reporting & Disability Claims Management – Project Kick-off
- Apply Year-End Support Packs – ECC
- Enterprise Change Management Planning

2021

- Apply Year-End Support Packs – S/4 HANA
- NetWeaver Upgrade for Business Warehouse & Portal
- Migrate – Test – Fix & Repeat!
- Enterprise Change Management Execution
- Prepare for Go Live – Dress Rehearsal
- Production Implementation – May 19 to May 24
- May 25 - S/4 HANA & Incident Reporting & Disability Claims Management GO LIVE!

# Project Team

City Team (115)	SAP & Sodales Consultants (50)
Program Manager	SAP Program Manager
Project Manager	SAP Project Manager (Off-shore)
Project Leader – Finance	SAP Functional Lead – Finance
Project Leader – HCM & Payroll	SAP Functional Lead – HCM & Payroll
Project Leader – Material Management	SAP Functional Lead – Material Management
Project Leader – Business Warehouse	SAP Functional Lead – Business Warehouse
Project Leader – BASIS & ABAP	SAP Technical Lead - BASIS
BASIS & Security Administrators	SAP BASIS & Security Administrators
ABAP Developers	SAP ABAP Developers
Functional Specialists	SAP Functional Specialists
Project Leader – Incident Reporting & Disability Claims Management	Sodales – Project Manager
Business Subject Matter Experts	Sodales – Product Owner
Architects & Infrastructure Specialists	Sodales - Consultants
Extended Team	

- **SAP Enterprise Support Advisor assigned**
  - Engagement plan tailored to support the S/4 HANA migration project with regular cadence meetings
  - Facilitate rapid collaboration with SAP support experts
  - Escalate resolutions of incidents and support tickets
  - Schedule journey checks and continuous quality checks (CQC) based on project stage & review results and provide required guidance to remediate as needed
    - Journey Check – Realize to Deploy
    - CQC for Technical Conversion Optimization
    - CQC for Technical Performance Optimization
    - CQC for Security Optimization
    - CQC for Financial Data Quality
    - CQC for Going Live Support
    - CQC for Early Watch
- **SAP Customer Care**
  - Assigned Project Coach & Development Angel
  - Shares product related information and learnings from other projects
  - Provides guidance and follow-up on product related questions



# S/4 HANA 1809 – Pre-requisites

- ECC Infrastructure – SQL Server 2012 (or later)
  - 2 – Steps Migration @ City → ECC – SQL Server 2008 → ECC – SQL Server 2012 → S/4 HANA 1809
- S/4 HANA Infrastructure Set-up – Linux expertise is required
- System Documentation (Fiori Implementation, ESS / MSS Features)
- SAP GUI Version 7.60 or later
- Solution Manager Version 7.1 at minimum support pack of 10 or higher
- Business Partner Implementation
  - Refreshed ECC Sandbox from ECC Production
  - Implement & Test Business Partners in Sandbox → Development → QAS → Production
  - We did not enable the use of Business Partners in ECC
- Simplification Item Checks before each migration cycle
  - Refreshed ECC Sandbox or Staging environment from ECC Production
  - Executed Simplification Item check & Corrected as needed in Sandbox → Development → QAS → Production

# S/4 HANA – Infrastructure Set-up (Key Points)

- Server sizing is critical especially for HANA database layer
- Kernel version on all servers must be certified by SAP for the S/4 HANA version
- Hostname restrictions must be observed –
  - Hostname cannot exceed 13 characters
  - Case-sensitive
  - Hostname command must return only the hostname and not the fully qualified domain name (FQDN)
- Configure local host firewall on Linux RHEL servers and open all required ports
- Mount File Servers (Windows) for interfaces
- GID on all S/4 servers to match across the transport management path
  - Development → QAS → Production
- High Availability & Disaster Recovery set-up through use of VMWare Technology & HANA System Replication
  - Pacemaker was not used

# S/4 HANA – Migration Cycle (High-Level)

- **Prepare:**
  - Build Staging Server (SQL Server 2012) based on ECC Production Copy
  - Build GLR Server (SQL Server 2008) based on same ECC Production Copy
  - Build the S/4 HANA servers
  - Execute Simplification Item Check on staging server
  - Complete Pre-Migration checks & record results
- **Execute:**
  - S/4 HANA Migration
  - Code Remediation & Performance Tuning
  - Integrations and Connections (Portal, Dispatcher, Business Warehouse, Concur, SuccessFactors, Internal Sub-systems etc.)

# S/4 HANA – Migration Cycle (High-Level)

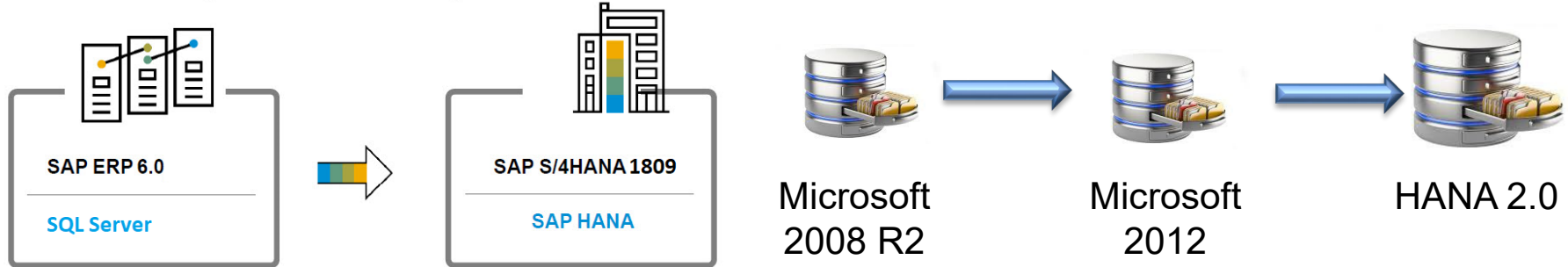
- **Validate & Test**
  - Complete Post Migration checks & verify against Pre-Migration check results
  - Execute Payroll Compares and match to the penny!
  - End-to-end Functional Tests (approximately 2,000 test cases per cycle)
  - Performance Testing
  - Test High Availability and Disaster Recovery for QAS and Production environments
  - Approximately 1,000 defects logged & resolved across 6 migration cycles!

# S/4 HANA – Program Scope & Accomplishments

## 1. ECC EHP 6.0 to S/4 HANA 1809 Technical Migration

- Including Code Remediation where required (no loss of existing functionalities and customizations)

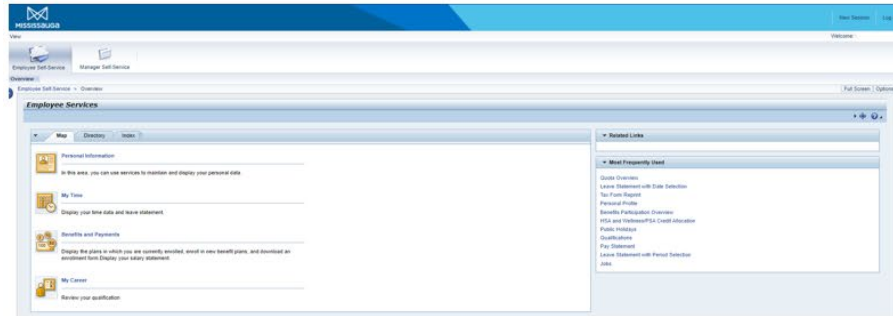
System Conversion to SAP S/4HANA 1809



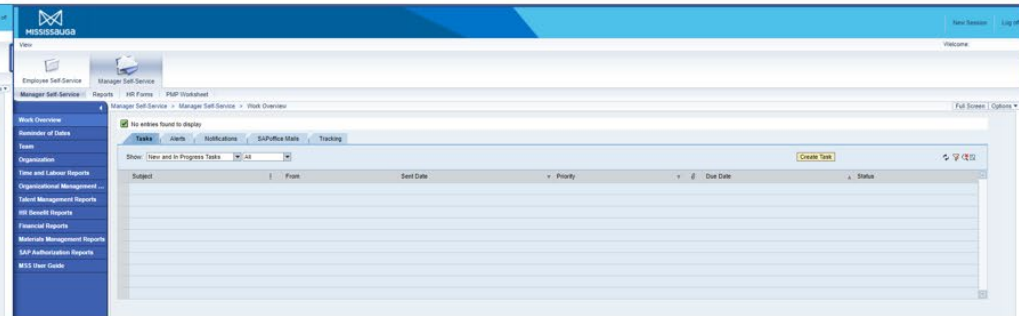
On 4 environments: Sandbox, Development, QAS and Production!

# S/4 HANA – Program Scope & Accomplishments

## 2. SAP Portal Upgrade (7.31 to 7.50)



Employee Self-Serve (ESS)

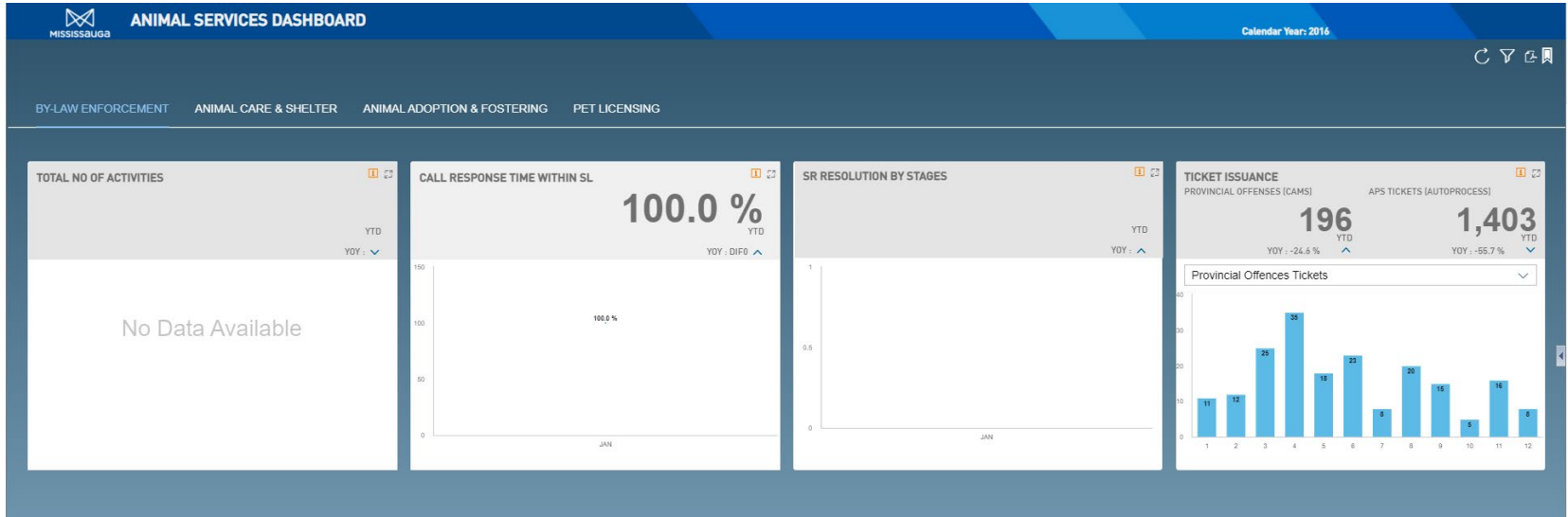


Manager Self Serve (MSS)

On 4 environments: Sandbox, Development, QAS and Production!

# S/4 HANA – Program Scope & Accomplishments

## 3. SAP Business Warehouse Upgrade (7.40 to 7.50)

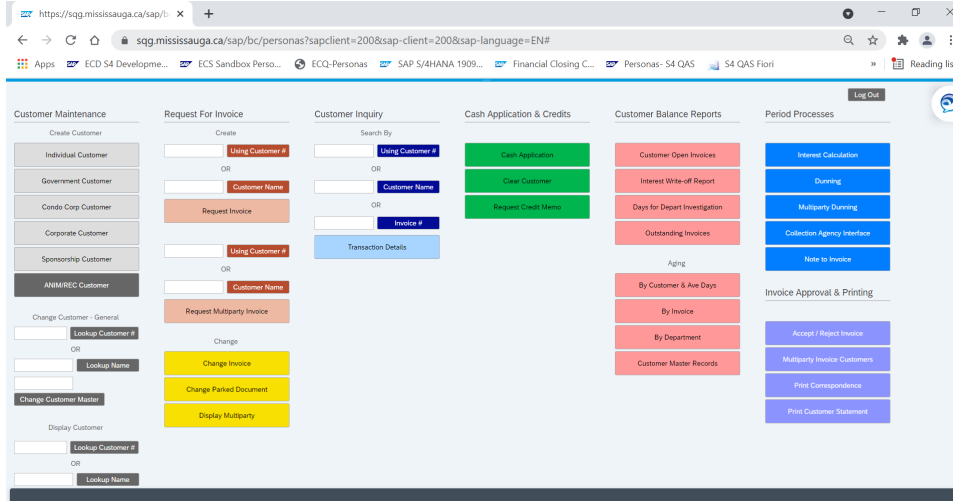


For Analytics and Dashboards

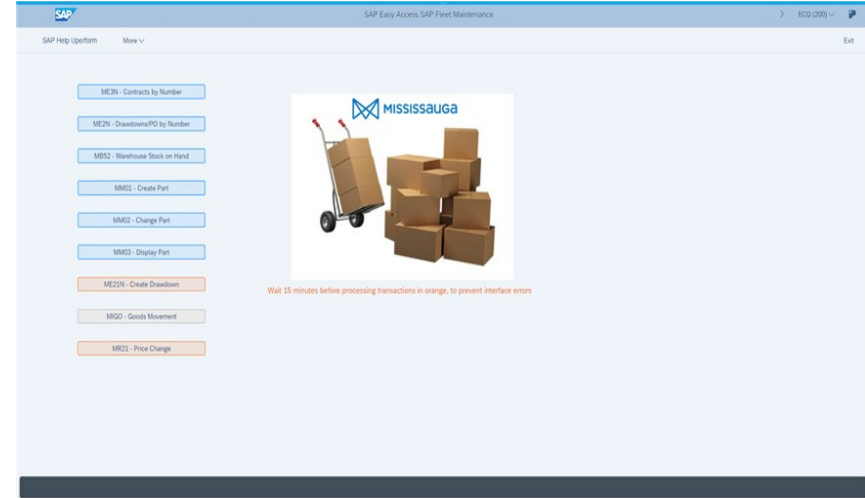
On 4 environments: Sandbox, Development, QAS and Production!

# S/4 HANA – Program Scope & Accomplishments

## 4. SAP Personas Component Upgrade (2.0 to 3.0)



For Accounts Receivables Collections (ARC)



For Service Center

On 4 environments: Sandbox, Development, QAS and Production!



# S/4 HANA – Program Scope & Accomplishments

## 5. New Accounts Payable Payment Workflow

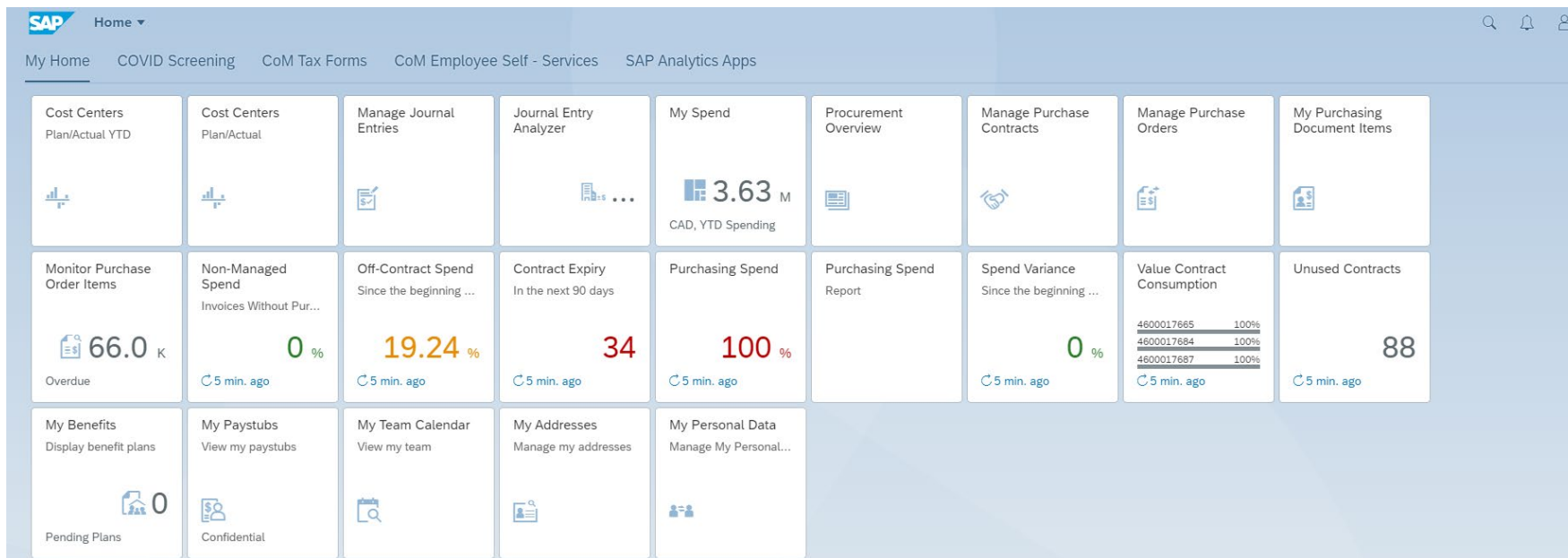
The screenshot shows the SAP My Inbox interface. On the left, a list of tasks is displayed, all marked as 'Overdue'. The main area shows a detailed view of a task: 'Release: Supplier invoice payment release CC01 19008786732021'. The status is 'Ready' and the priority is 'Medium'. It includes a 'SAP Workflow' section with a refresh button and a due date of 'Aug 10, 2021'. Below this, an information icon (i) is present. The 'Document no.' is '1900878673', the 'Fiscal year' is '2021', and the 'Company code' is 'CC01'. A note instructs the user to approve the release and provides instructions on how to reject it.

The screenshot shows the 'Release Line Item Line Item 1' form in SAP. It includes fields for 'Vendor' (1026407), 'Company Code' (CC01), 'City of Mississauga', 'Amount' (289,885.11 CAD), and 'Tax Code' (00). The 'Additional Data' section contains fields for 'Bus. Area', 'CD Base', 'Payt terms' (CD00), 'Blinc Date' (2021/07/31), 'Pmnt block' (R), and 'Assignment'. A 'Text' field contains 'JUL 2021 CDN MONTHLY STATEMENT'.

Automated & Paperless!

# S/4 HANA – Program Scope & Accomplishments

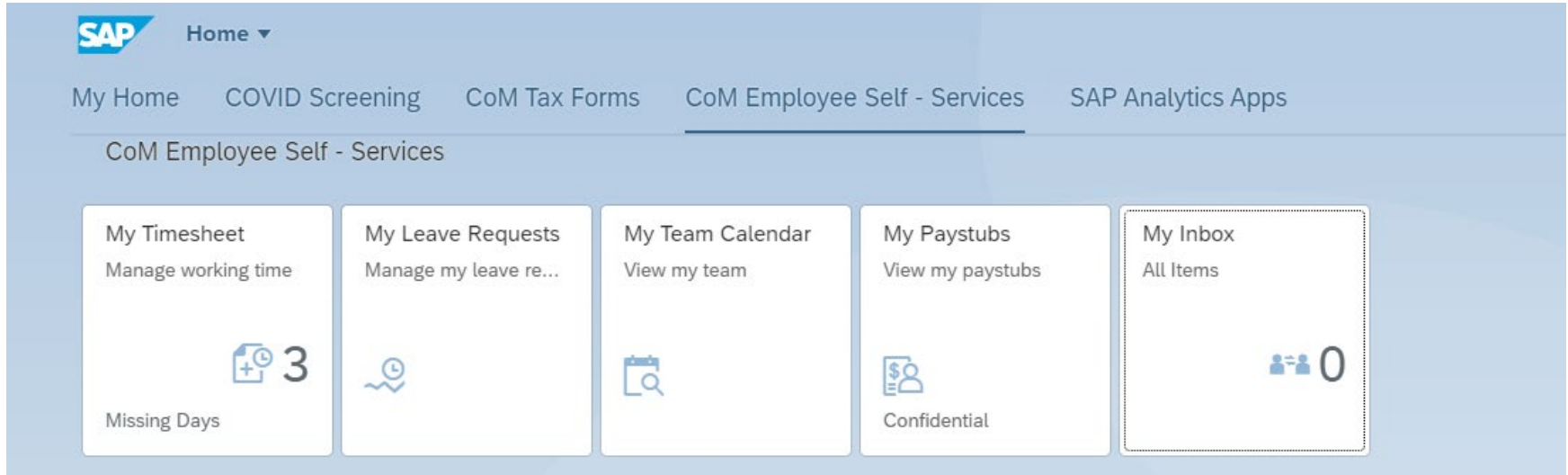
## 6. Implementation of 43 New Fiori Apps



Finance, Procurement & Human Resources

# S/4 HANA – Program Scope & Accomplishments

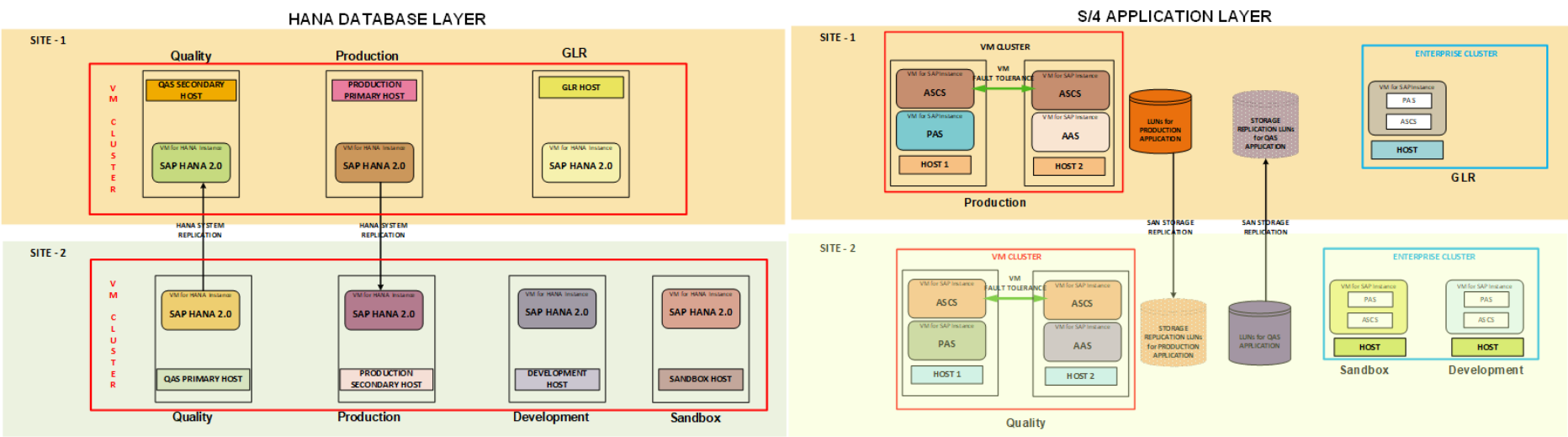
## 7. Enhancements (upgrade) of 5 Existing Fiori Apps (Human Resources)



Approvals for Timesheets, Leave Requests & AP Payment Workflow through My Inbox App!

# S/4 HANA – Program Scope & Accomplishments

## 8. New Architecture & Infrastructure



High Availability & Disaster Recovery through HANA System Replication & VMWare Technology!

# S/4 HANA – Program Scope & Accomplishments

## 9. SAP Information Hub

The screenshot displays the SAP Information Hub homepage. At the top, the SAP logo is followed by the text 'Information Hub'. Below this, a welcome message states: 'Welcome to the SAP Information Hub! This website provides you access to job aids, FAQs and training material to help you use SAP solutions to complete HR, Finance, Revenue and MM and other functions. Get started with the S4 HANA and Fiori General FAQs and personalize your Fiori My Home page. Click on the blue rectangles or plus (+) icon below to expand selections for links. For additional course content, please visit SAP SuccessFactors Learning (note: additional courses and SAP material also available on uPerform). Before creating a ServiceDesk issue, please review the ServiceDesk SAP issue FAQs.'

The main content area is organized into eight panels, each representing a different user role:

- All Staff (HR/PAYROLL):** Includes links for Disability Claims Portal, Employee Self Service, Fiori Mobile Applications, Financial FAQs, Fiori Mobile Applications, and Transaction Changes/New. It also lists CO Line Item Browser, G/L Account List, and G/L Line Item Browser FAGLLOSH.
- Supervisors/Managers (HR/PAYROLL):** Includes links for Disability Claims Portal, Fiori Mobile Applications, Incident Reporting (Form 301), Manager Self Service, Time Approval via SAP GUI, and Fiori Mobile Applications.
- Time Reporters (HR/PAYROLL):** Includes a link for Time Reporting for Others.
- Contract Managers/MM Staff (CONTRACT MGMT):** Includes Fiori Mobile Applications and MM/PURCHASING links for Transaction Changes/New, Create Contract with Account, Create PO with Account, Display Contracts by Supplier, Display PO by Supplier, Display Purchasing Document by Requirement Number, Display Supplier Business Partner, Price Contract, and Price PO.
- Storekeepers (MM/INVENTORY):** Includes Fiori Mobile Applications and Transaction Changes/New.
- ARC Staff (REVENUE/AR):** Includes Fiori Mobile Applications and Transaction Changes/New.
- Finance Staff (FINANCIAL):** Includes Fiori Mobile Applications, ACCOUNTS PAYABLE links for Fiori Mobile Applications, General FAQ Info, and Transaction Changes/New.
- Other (ACCESS/CONCUR/SF):** Includes 990 Access Tips for SAP, Analytics, Concur, Fiori Mobile Applications, SuccessFactors, and Winshuttle.

One-stop for SAP Knowledge Articles – Job-Aids, Videos & FAQs!

10.

## **EHS → Incident Reporting & Disability Claims Management**

## Health & Wellness

- **Disability Claims Management**
  - Short Term Disability (STD)
  - Long Term Disability (LTD)
  - Worker Safety Insurance Board (WSIB)
  - Weekly Indemnity (WI)
  - Sick Leave Credit (SLC)
  - Medical Leave of Absence (MLOA)
- **Permanent Accommodation**
- **Health Coaching**
- **Ergonomic Assessments**

## Safety

- Accident/Incident Reporting
- Vehicle Collision Reporting
- Multi-Level Investigation
- Corrective Actions

# Classic SAP EHS Module

- In 2010, Migrated from PeopleSoft to SAP HCM including EHS.
- SAP EHS-HEA (Occupational Health) component for occupational incidents/accidents.
- Combination SAP EHS-HEA module with custom infotype for non-occupational claims maintenance.
- Custom workflows, reports and queries.



# Challenges

- PDF based process for Incident Reporting
  - Inaccurate data due to manual input of employee information in forms
  - Forms can only be filled from a computer
  - Limited space in forms for details
  - Corrective actions and Investigations were not tracked electronically
- Labor intensive claims management process
  - Claim information stored on several different places including SAP, SharePoint, Outlook, Excel and on paper
  - Time consuming process to keep paper file for each claim
  - Manual benefit eligibility calculations
  - Manual creation of reports by compiling data from various sources.

# Incident Reporting & Claims Management

- In 2020, RFP was issued to replace EHS module in SAP.
- Sodales top scored through a competitive RFP process and was contracted to implement Incident Reporting and Claims Management modules.
- Sodales provides SaaS based application built on HANA 2.0 technology with data hosted within the SAP data center.
- Additionally, Sodales also implemented fully customized applications for COVID Active Screening and Vaccination Status for the City.

# Application Landing Page

MISSISSAUGA Home ▾

Employee View Supervisor/Manager View Designate View EHS Consultant View EHS Assistant View Designate Supervisor View Claims Management Specialist View

COVID-19 Active Screening My EHS Documents COVID-19 Test Results

Supervisor/Manager View

Screening Status Overview COVID-19 Active Screening Supervisor/Manager Backup Report Incident (301/417) Corrective Actions Dashboard Review In (301/417)

Vaccination Status

MISSISSAUGA Home ▾

Employee View Supervisor/Manager View Designate View EHS Consultant View EHS Assistant View Claims Management Specialist View

EHS Consultant View

Open Claims Employee Master File COVID-19 Vaccination Report Claims Portal

EHS Assistant View

Open Claims Claims Portal EHS Assistant Employee Master File

Claims Management Specialist View

Claims Portal CMS Open Claims Review Incident(301/417) Employee Master File

# Incident Reporting

Review Incident ▾



Review Incident Details

Ramon Francis  
Name

Temp. Hourly  
PT  
Employee Status

04-18-2022  
Incident Date

Injury – No  
Aid  
Incident Category

Caught  
in/on/betwe...  
Accident Type

50059  
Incident ID



Case Summary



Form 301



Corrective Actions



Investigation



Notes



Attachments

## Employee Incident Information

Employee Name:

Employee ID:

Address (No.,Street,Apt.):

City: Mississauga

Postal Code:

Home Tel.No.:

Employee Status: Temp. Hourly PT

Date of Employment:

Department: CMS/Community Services Dept

Position Title: Aquatics Instruct

Corrective Actions Dashboard ▾

Corrective Actions Dashboard

0

Open CA's

677

Closed CA's

49

Overdue

Due Date From:

Due Date To:

Corrective Action Number:

Date Created From:

Date Created To:

Status:

Incident Type:

Incident Number:

Incident Category:

Assigned To:

Reported By:

Accident Type:

Department:

Division:

Section:

Show All

Search

Load More



Close CA

Add Notes

Reassign

# Disability Claims Management

Claims Portal

Claims Portal

0	9	4	7	3	15	0	0
My Task	Not Classified	STD(Open)	LTD(Open)	WI(Open)	WSIB(Open)	SLC(Open)	MLOA(Open)

Show Filter Bar Clear Go

All Records STD LTD WSIB WI SLC MLOA Modified Work Other My Tasks

All Medical Requests (1)

	Case Number	Link to file	Employee Name	Employee ID	First Absence Date (MM/DD/YYYY)	Benefit Type	Benefit/Claim Start Date	Benefit/Claim End Date
<input type="checkbox"/>	39124				12-28-2020	WSIB - MA	08-13-2021	06-25-2021

Claims Portal

Open Record

Employee: [Redacted] WSIB - MA Open Approved Approved To Date

Employee ID: 39124 Benefit Type: Case Status: Claim Status:

Claims Data Emp Info Med. Records Notes Tasks Form 7 Emp. Notices Summary Claims History RTW Acc

CASE MANAGEMENT:

Assigned to EHS Consultant/Specialist: [Redacted]	Work Status: Not working
Benefit Type: WSIB - MA	Case Status: Open
Claim Decision Status: Approved	Benefit/Claim Start Date: 08-13-2021
Claim Approved Start Date: MM-dd-yyyy	Benefit/Claim End Date: 06-25-2021
Approved To Date: MM-dd-yyyy	Length of Service:
Date of Disability: 12-28-2020	Link To File:

Save Cancel

# Benefits

## Paperless, Automated Process and Mobile Friendly

- Eliminates paper and allows staff to access the system using any device, anytime, anywhere
- End to End claims management and incident reporting process now online in one system
- Automatic Benefit (STD/SLC/WI) calculations

## Integration with SAP, Outlook and WSIB

- HCM data from SAP SuccessFactors to reduce data entry and improve accuracy
- Send notifications via outlook to the employees or other business units
- Send Form 7 electronically for faster processing of claims

# Benefits

## Data level security and Role based security

- Add data level security. Restrict access based on user roles.

## AODA and Regulatory Compliant

- Personal Health Information Protection Act (PHIPA)
- Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)]

## Embedded Analytics

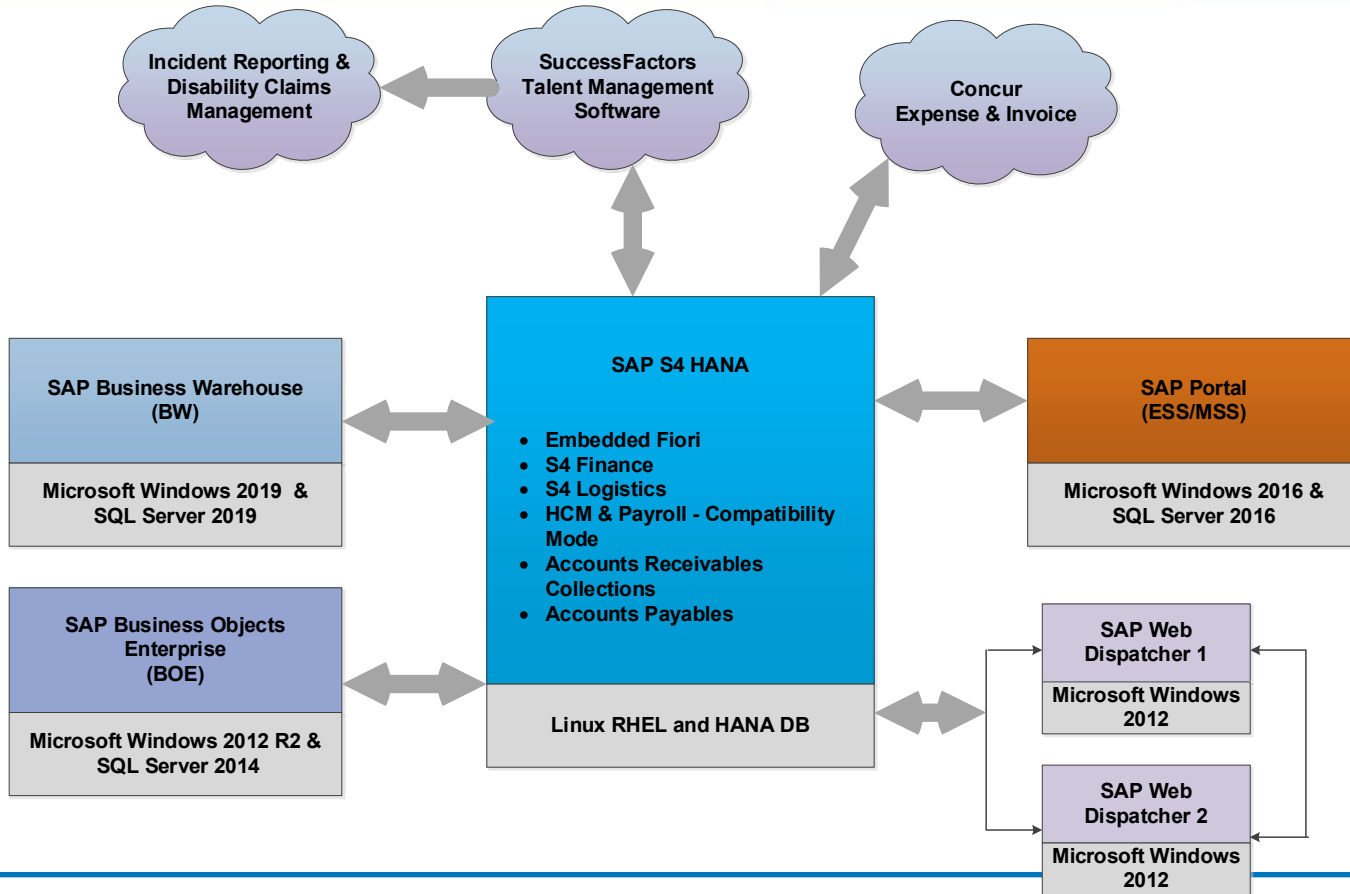
- Analytics to track Incidents and Claims

# Phase 2 – In Progress

- Reporting and Dashboard for Incident Reporting and Claims Management module.
- Admin Console
- Integration with SAP S/4 HANA



# SAP S/4 HANA Landscape



# S/4 HANA – Lessons Learned

- **Project Team - Together Everyone Achieves More**
  - Internally, build a strong technical and functional team that is dedicated to the project
  - Open line of communications at all levels, internally and with consultants
  - Good understanding of current state and processes along with an understanding of the future state and upcoming changes in processes
  - 24x7 operation with on-shore and off-shore consultants assigned to the project
  - Total ownership and accountability for deliverables
- **Executive Sponsorship & Leadership**
  - Being a transformational project, Executive Sponsorship is important
  - City Project Executives and SAP Executives had regular meetings to ensure project success
  - Steering Committee must empower the team and provide support and guidance
- **Project Scope**
  - Keep the project scope contained
  - Do not look at introducing too many new functionalities / modules along with S/4 HANA migration

# S/4 HANA – Lessons Learned

- **Time is of the essence**
  - Do not underestimate the effort and allocate sufficient time and appropriate resources for tasks
  - Plan for year-end support pack implementation as migration may span across years
  - Plan for keeping environments in-synch through the migration
- **Fiori Apps Vs. SAP GUI in S/4 HANA**
  - Front-end for S/4 HANA is all Fiori is a myth (particularly for brownfield implementations)
  - Major customizations would be needed to Fiori apps to accommodate custom business processes
  - Continue to use SAP GUI
  - Implement Fiori Apps for Self-Serve and Analytics
- **Business Partners**
  - Adds complexity to HCM processes when proper sequence is not followed for creation of employees with multiple personnel numbers that are linked by SIN #

# S/4 HANA – Lessons Learned

- **Test – Test – Test**

- Non-stop and repeated testing through the various cycles
- Performance testing is equally critical as functional & technical testing
- The move from Windows to Linux entails file path changes and introduces case-sensitivity
- Document required changes to variants and execute changes during go-live

- **Production Freeze**

- Initial plan was to implement a full production freeze; with the pandemic many legislative changes had to be implemented
- Manage dual landscapes – ECC & S/4 HANA
- After S/4 HANA Development environment was completed and signed-off, any code / configuration changes completed in ECC had to be re-done again in S/4 HANA environment and re-tested and synched

- **Change Management**

- Key element for successful adoption
- Include key business stakeholders during testing (QAS)
- Provide demonstrations of changes to business processes
- Prepare job-aids, videos and frequently asked questions for users
- Review key knowledge articles with Service Desk for quick one-and-done call resolutions

# S/4 HANA – Lessons Learned

- **Production Implementation**

- Incorporate Dress Rehearsal cycle and time all activities; execute as a full rehearsal for production cut-over (24x7 operation)
- Plan production cut-over over long weekend
  - With 2-step migration, we needed 5 days to complete production cut-over activities
  - SAP application was not available to business users for 2 business days

- **Expect the unexpected!**

- Pandemic – March 2020 resulted in move to a virtual work environment
- Team members had to juggle their work along with family responsibilities with online schooling and daycares being closed
- During dress rehearsal cycle, some consultants got COVID and had to be replaced with alternates during the cycle

*Thank  
you*