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## Migration to SAP S/4HANA, Single Tenant Edition with SAP Sales Cloud and SAP Service Cloud

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Hans Dossche, Dir. HANA CoE, Birlasoft



Session ID # 83151



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# Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:

<http://info.asug.com/2019-ac-slides>



# Agenda

-  Introductions
-  ESI & Birlasoft Quick Overview
-  Current IT landscape
-  Drivers & Scope for the Program
-  Approach & Deployment Strategy
-  S/4HANA Migration Findings
-  C/4HANA Deployment
-  Q & A



# Key Takeaways

1. Understand the approach to S4 adoption via Migration
2. Understand Deployment of C/4HANA (C4C Sales) & Integration
3. ESI Customer's Perspective on Findings & Observations





# About the Speakers



## Lance Litmer

- Director of IT
- [short background]



## Hans Dossche

- Director HANA CoE
- [short background]







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# ESI's Global Footprint

~ \$300M Yearly Revenue

~ 670 SAP System Users



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# 70 Years of Experience

## Market Focus



Consumer Electronics

Mobile Devices

IoT

Various End Markets

## Customer Focus



PCB Processors/Manufacturers

Semiconductor Fabricators

Component and Device Manufacturers

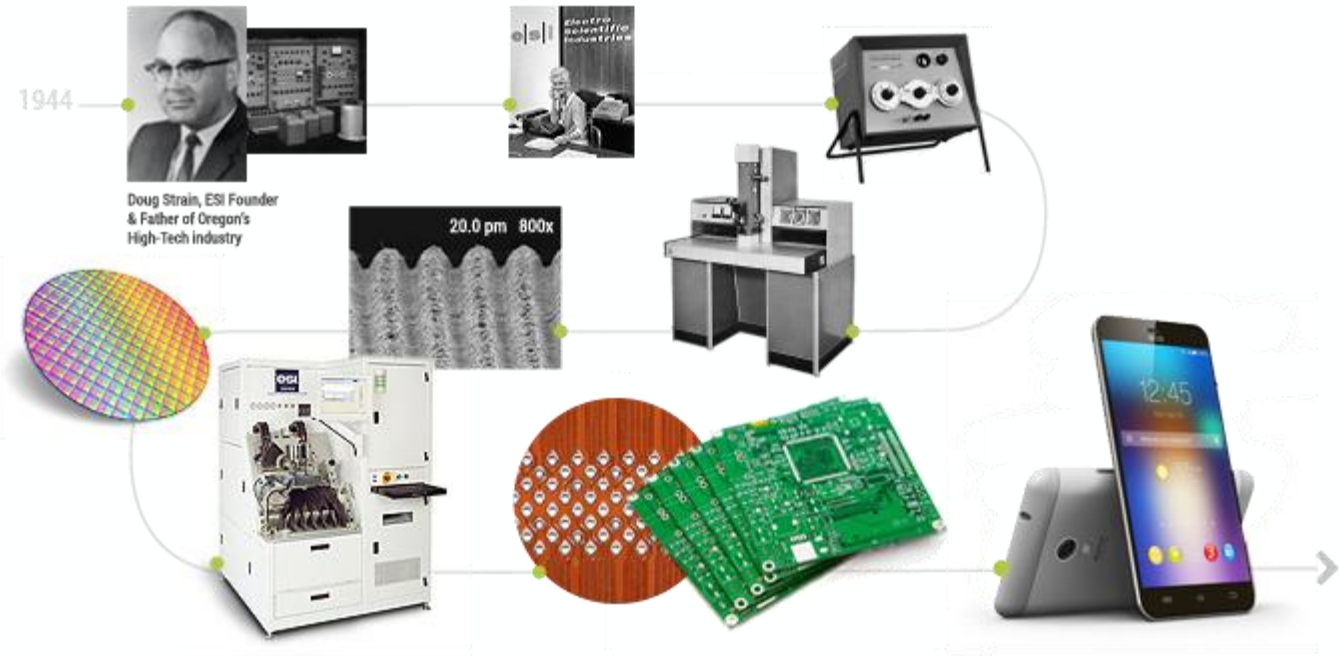
## Manufacturing



Singapore

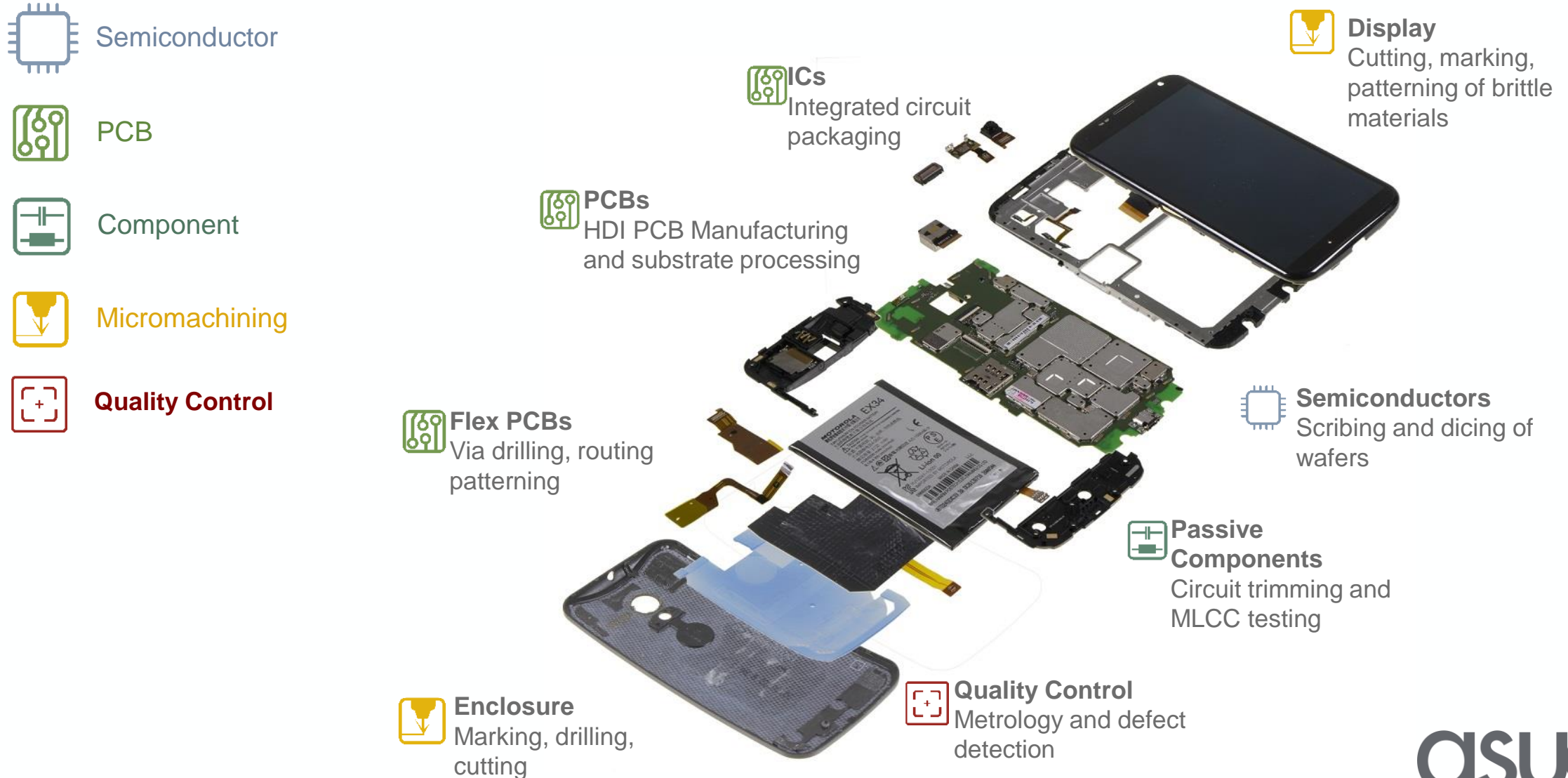
United States

China





# Processes, Technologies, Techniques and Materials





# About Birlasoft

20 Years of Industry  
Expertise Across the  
SAP Landscape



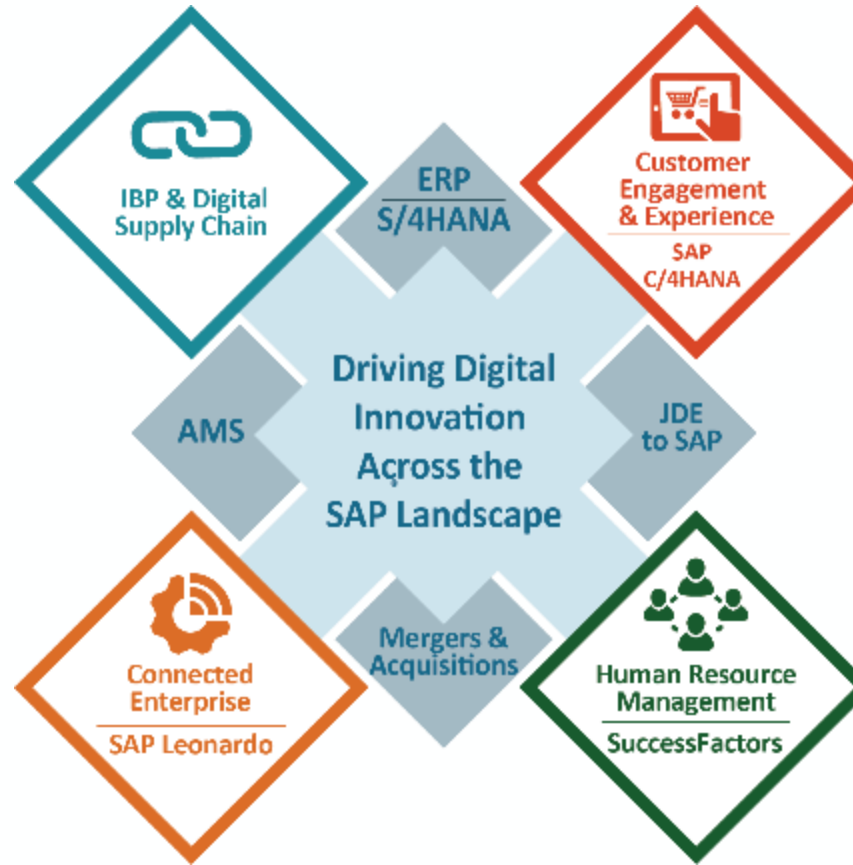
2000+  
SAP Consultants

Global SAP  
AMS Partner



Early adopters of IBP,  
TM & MES

Digital Innovation  
partnership with  
SAP for Leonardo



Handling SAP BOBJ  
Worldwide product  
support since 2005



Ranked Leader in SAP  
HANA. 120+ Projects,  
450+ Practitioners

SuccessFactors  
Leadership.  
1000+ Projects,  
700+ Customers



CRM / CEC – C/4HANA  
(Hybris, CPQ & C4C/C4S)  
80+ Engagements

300+  
Core SAP/BI Projects



Automotive &  
Transportation



Energy &  
Resources



Consumer &  
Industrial  
Goods



Media



Life Sciences



Banking, Capital  
Markets &  
Insurance (BFSI)

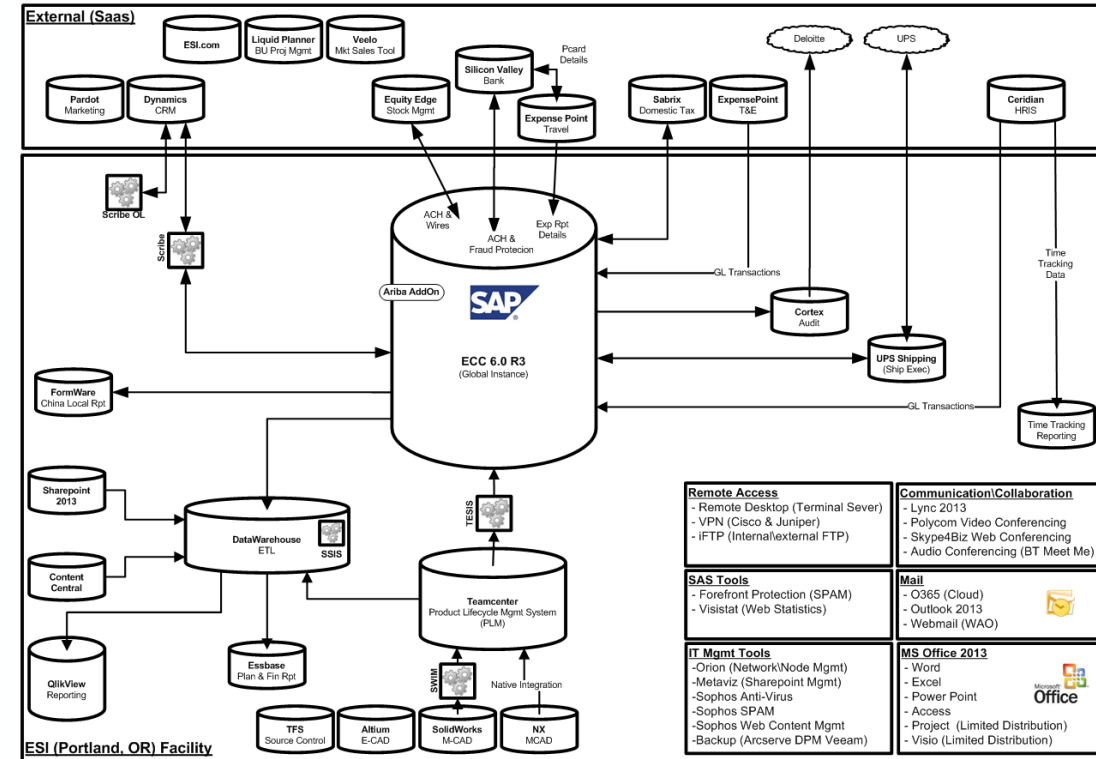


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# 2018 Environment

- ✓ ECC 6.0 EhP7 on SQL DB
  - ✓ Original Go-Live in 2005
  - ✓ SD, SM, FICO, MM, PP, QM
  - ✓ Single global instance
- ✓ Complex product configuration
  - ✓ Use SAP Variant Configurator
- ✓ Enterprise Data Warehouse connected with ECC
- ✓ Light implementation of MS Dynamics (Sales)





# Drivers & Scope for the Program

## Business

- Supply Chain Collaboration (direct\indirect)
- Forecast management and visibility (Sales\Marketing)
- Improving Customer Service (Service)
- Quality focus and improvements
- Need for better Compliance enforcement
- Need DR beyond backups



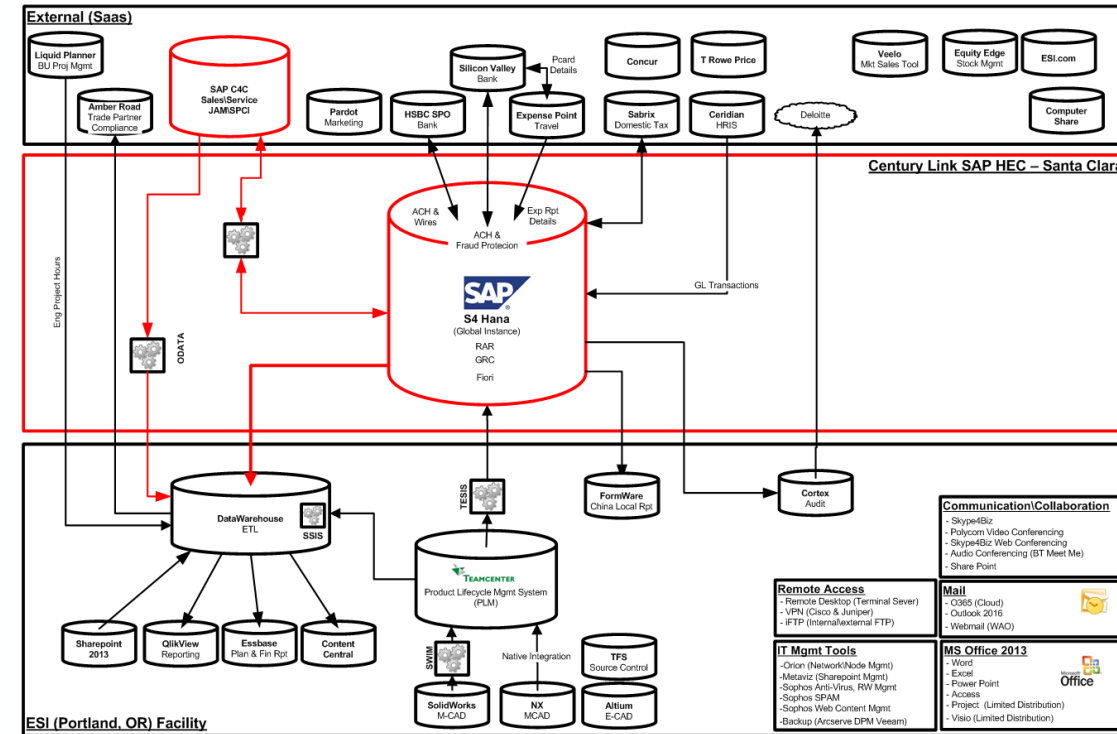
## Outcome

- SAP remains ESI's core ERP platform and will move to S4\Hana Single Tenant Cloud (HEC)
- Start business transformation without having to wait S4\Hana migration to complete
  - Implement Sales and Service initiatives (C4C) along side S4 migration
- Migrate versus Green field from ECC to S\4
  - Maintain multiple year investment in existing Data Warehouse\Reporting
  - Using S4 Compatibility Views and SLT to minimize rebuild effort
- Deliver and support with AMS model



# Approach & Deployment Strategy

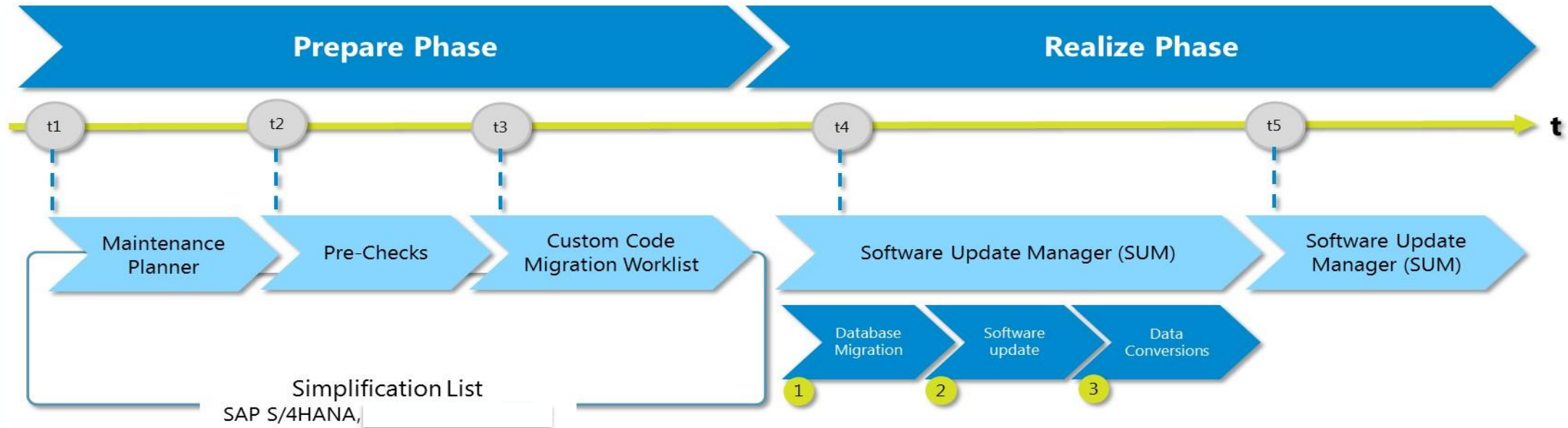
- S/4HANA Single Tenant Cloud
  - v1709 in HEC
- ✓ C/4HANA vs. Salesforce
  - ✓ (C4C Sales & Service)
- ✓ GRC/ RAR



RED = 2019 Changes



# S/4HANA Migration Approach



- **S/4HANA Readiness Check**
- Certification of Third Party Add-Ons: Confirmation of compatibility and for others de-installation required via '**SAP Maintenance Planner**'
- Simplification Business Process Impact Analysis: '**SAP Simplification List**'
- **Pre-Checks:** A pre-check report is run to identify steps to make the system compatible with the conversion process
- Technical Object Inventory & Status – 'Custom Code Migration Worklist': '**SAP Simplification Database**', CCLM, UPL
- Birlasoft HANA Toolkit and SAP ATC
- Business Case Opportunity & Roadmap
- Project Resource (IT/Business) & Cost Plan



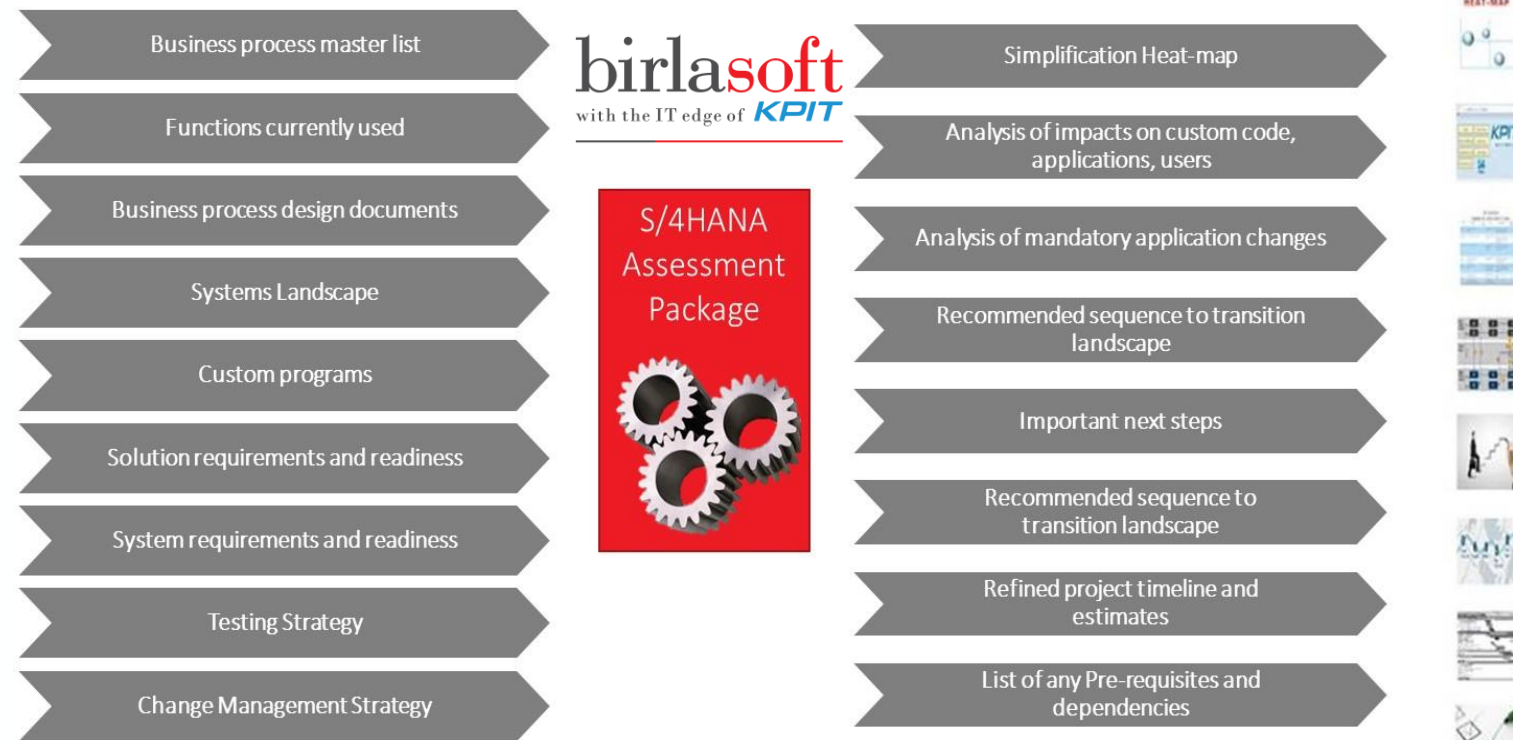
# Project Approach

*Conduct the migration of SAP S/4HANA in two stages. Below are the details of the approach.*

## Birlasoft S/4HANA v1709 Assessment Mechanism

### Stage 1 - S/4HANA v1709 Assessment: :

- Copy existing production to Sandbox (ODB)
- Run HANAtanization tool sandbox (ODB)
- Analyse code
- Run DMO – SUM
- Upgrade migration tool to Sandbox (HDB)
- Testing (Functional) – Sandbox HDB





# Summary HANAtization – Custom Object Analysis for HANA DB

## Must Do HANAtization

Golden Rules	Total Number of Objects	Total Number of affected lines
USE ALL KEY FIELDS IN WHERE CLAUSE OF SELECT SINGLE STATEMENT	158	552
SPECIFY KEYS WHEN SORTING AN INTERNAL TABLE	63	221
SORT INTERNAL TABLE AFTER SELECT QUERY	253	1289
CHECK IF INTERNAL TABLE IS SORTED BEFORE READING WITH BINARY SRCH	43	225
USE ORDER BY PRIMARY KEYS IN CLUSTER AND POOL TABLES	27	77

## Distinct Customer Objects

Record	Unique Count
Technical Objects with Syntax requiring HANAtization Remediation	382



# Simplification DB Custom Code Changes

Note	Count
2206980 - Logistics MM-IM Data Model Change	363
2198647 – S/4 Data Model changes in SD	71
1976487 – Finance data Model changes	30
2378796 – Material Classification with Commodity codes	127
2337368 – Inventory Valuation	93
2220005 – S/4 Hana Data Model changes in SD Pricing	15
2217299 – Material Management Inventory	93
Miscellaneous	84
Total Count of Objects to be changed / Reviewed	876



# Stats from Pre-Checks/ Readiness Check

Count of Module	
Module	Grand Total
Basis	1
FI	19
MM	33
SD	16
Technical	9
PP	6
Security	1
Grand Total	85

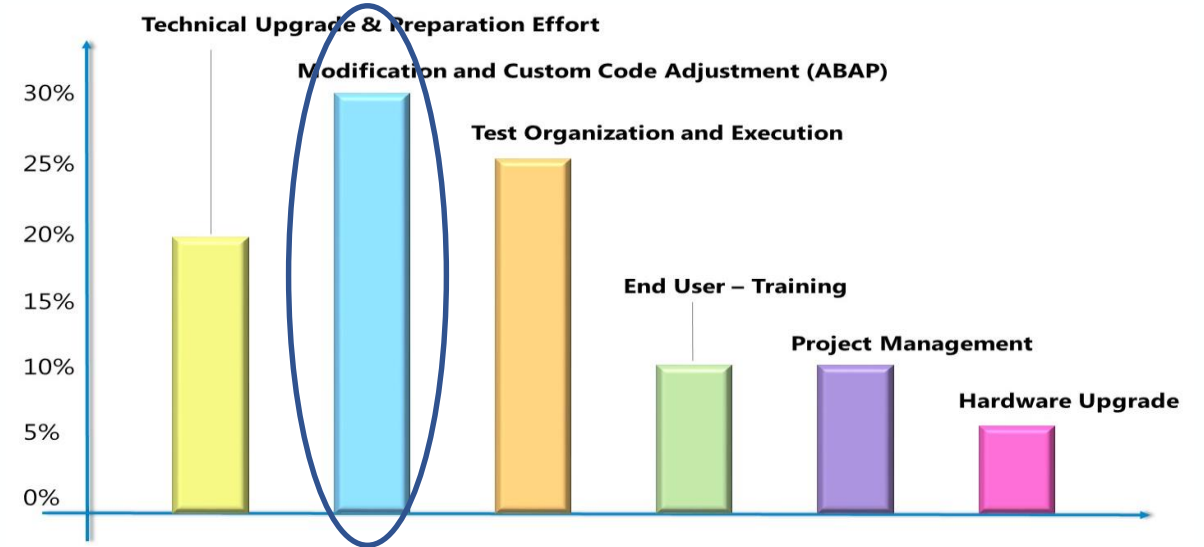
Examples:

- Technical Activation of Material Ledger
- Asset Accounting changes
- Commodity Code in ECC Foreign Trade
- MRP Areas instead of Storage Location MRP
- Set up of Business Partners
- SD RevRec to RAR



# Typical Pain Points with Custom Code and HANA

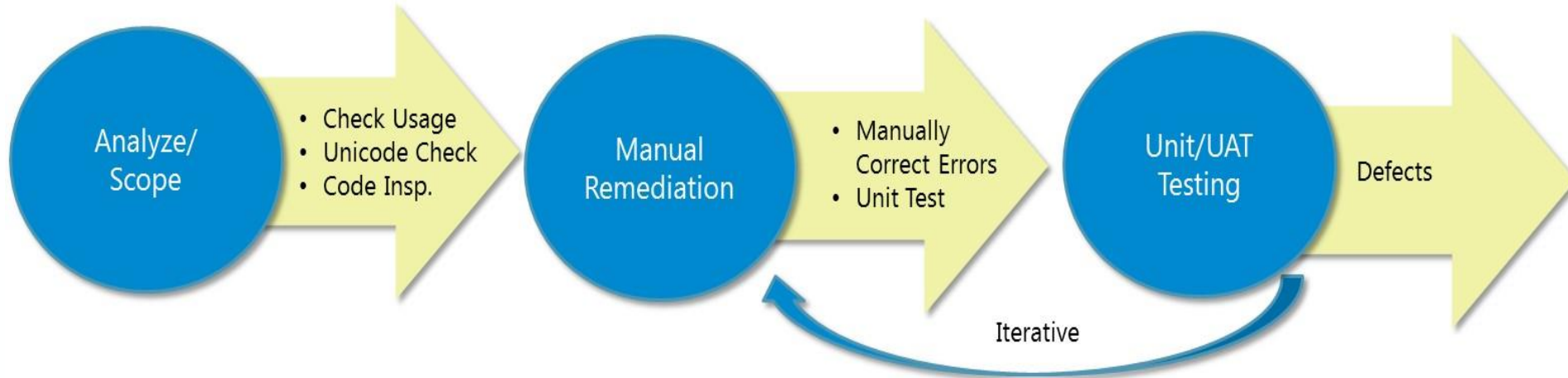
- ✓ Large amount of custom ABAP objects
- ✓ Evolving ABAP syntax and Best Practices coding for HANA Database
- ✓ Difficult to analyze and scope the seize of impacted objects for HANA migrations
- ✓ Actively used versus obsolete custom objects?
- ✓ With S/4HANA Enterprise management there is a change in SAP standard objects & Data Dictionary



Yearly Revenue	# years on SAP ERP	ECC Database size	Total Custom Objects	Cluster/Pool Issue Program	Cluster/Pool Issue ABAP Statements	Implicit Sort Programs	Implicit Sort ABAP Statements	Binary Search Programs	Binary Search ABAP Statements
~18B USD	14	~10TB	2000	346	1057	746	2425	157	1367
~23B USD	2	~6.6TB	2183	99	431	633	2053	139	1133
~400M USD	1	~160GB	1600	40	113	116	441	23	112
~700M USD		~5.5TB	1400	88	242	303	1082	74	668
~3B USD	17	~2TB	2207	197	369	215	680		
~30B USD	4	~2TB	1094	98	481	483	1644	101	1107
~3.1B USD	16	~5.3TB	3374	181	412	856	1517	161	400
~200M USD	19	~371GB	1637	172	473	657	2253	297	2310



# Custom Code Challenge

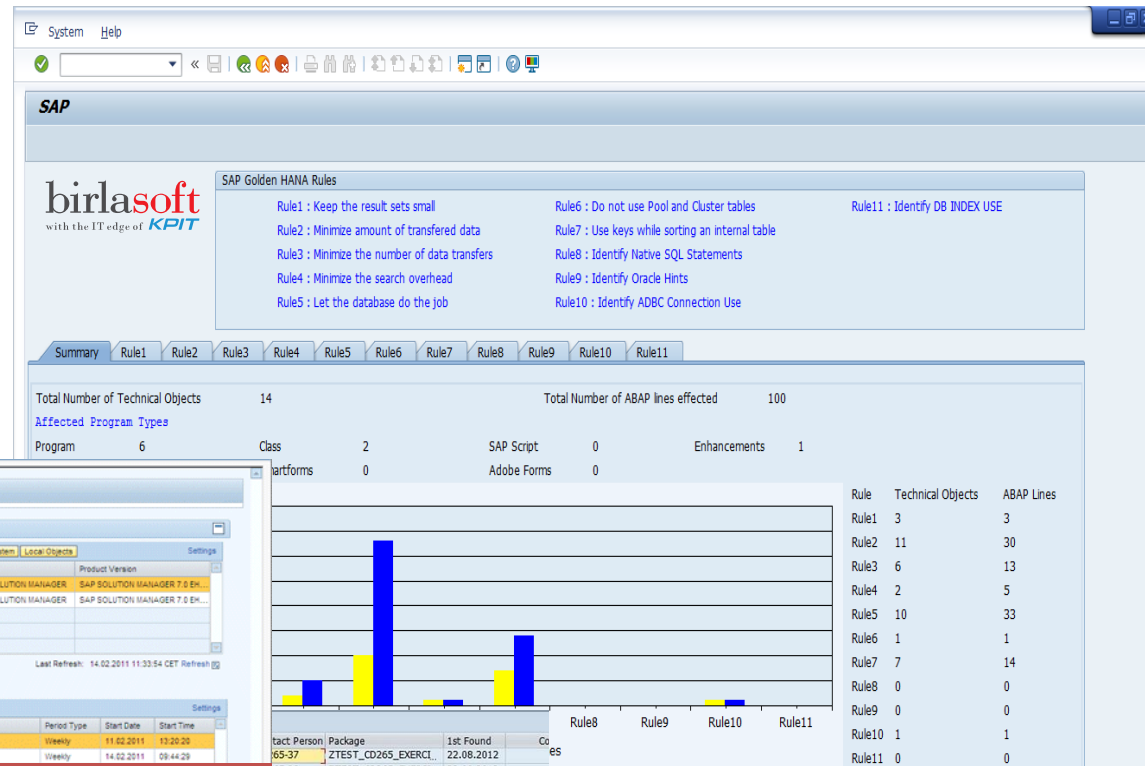


- A traditional approach follows iterative time-consuming cycles through Identification-Correct-Test
  - Sizable team of developers with significant effort to identify and correct the custom ABAP code issues
  - In-depth knowledge required; Risk of human error of either not done correctly, incomplete or affecting the existing functionality or from a performance perspective
  - Manual corrections are time-consuming, error prone and there is a risk of remediation to be inconsistent
- > Automation of code correction contributes to the success of the project while executed in the most cost efficient manner
- > Move corrected code to production upfront and keep the duration of Dual Maintenance short

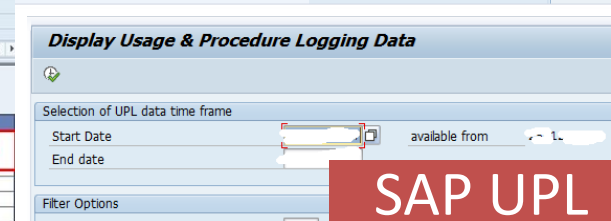
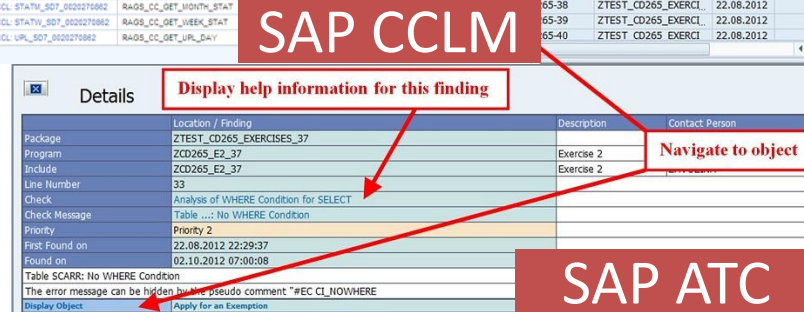


# Leverage Automation Tools in your S/4HANA Migration

Tools exist on the market to identify Business Value opportunities, automate the S/4HANA code inspection and retrofit process.



## Birlasoft S/4HANA Toolkit & Auto Code-Correction





# S/4HANA Migration Findings & Observations

- ✓ **Migration Effort:** Upfront efforts can be mostly done and managed by SI
- ✓ **Business Partners:** Vendor & Customer Upfront clean-up, Archiving and conversion strategy to BP
- ✓ **MRP Areas:** Review ECC set up before conversion, particularly returns and sub-contracting vendor solutions
- ✓ **Fiori:** Fiori Strategy assessment in advance. Understanding mandatory vs. optional (set your expectations upfront)
- ✓ **SAP HEC:** Implementation and coordination requires heavy interaction and management
- ✓ **S4 provided CDS Views; SLT** for external Data Warehouse feed (Worked!!)
- ✓ **OCM:** Limited Changes with S4\Hana for end user



# C4C Sales & Service

A single source global real time solution

**C4C Sales:**

Live November 2018

**C4C Service:**

In Build Phase

## Sales

Global multi-faceted sales forecast

Prospect, Lead, Contact mgmt.

Sales Activity Management

Multiple Opportunity type process support

Integrated to SAP Quoting

Integrated to SOP reporting in Data Warehouse

## Service

Full customer communication capture

Incidents, Billing, Inquiry

Contract Mgmt

Auto Warranty\Obligation Determination

FSE resource scheduling (availability\skills)

Service quote\orders integrate to ERP billing

Remote FSE mobility

## C4C User Experience

Easy to Learn and Use (rated high by users)

Very little difference in Mobile\Web app

Global performance good

Ease of access and use has driven adoption (use)





# Status of the Program

S/4HANA: Completed IST1 and IST2

C4C Sales: Live in November

C4C Service: Go live August 2019



# Q&A

For questions after this session, contact us at  
[Lance Litmer <[litmerl@esi.com](mailto:litmerl@esi.com)>] and [Hans.Dossche@Birlasoft.com]





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Spirit Airlines: Spirit Airlines' SAP S/4HANA Public Cloud and Ariba Transformation Journey

**May 8, 2019 | 1:00PM – 1:40PM | 310B**

ESI: Roadmap: SAP S/4HANA Private Cloud Migration with VC, Sales & Service Cloud

**May 8, 2019 | 3:00PM – 3:40 PM | 330C**

Rack Room Shoes: The Perfect Fit- Racking Up New Sales with SAP Commerce for B2C

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Pall Corporation: Field Service Automation with SAP Service Cloud at Pall Corporation

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