

S/4HANA and Beyond – Salling Group' Successful Transformation to S/4HANA and Next Steps on Clean Core

salling group

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Chief Enterprise Architect

Steen Kronborg



Area of Responsibility:

Heading enterprise architecture team and the knowledge matrix organization of solution architect. Overall design directions, patterns and technology innovations are the working domain.

Background:

18 years of experience in Retail with Salling Group

- 15 years heading enterprise architecture
- 3 years as lead consult of EWM implementation

6 years in various SAP implementation projects and consulting

Graduate of Aarhus Business School (Logistics)

Agenda



- **About Salling Group**
- Salling Group S/4HANA Program
- S/4HANA Custom Code Challenge
- Perspective and Next Steps on Clean Core
- Q&A

EVERY DAY BETTER



15 million
customers per week

70000+
employees

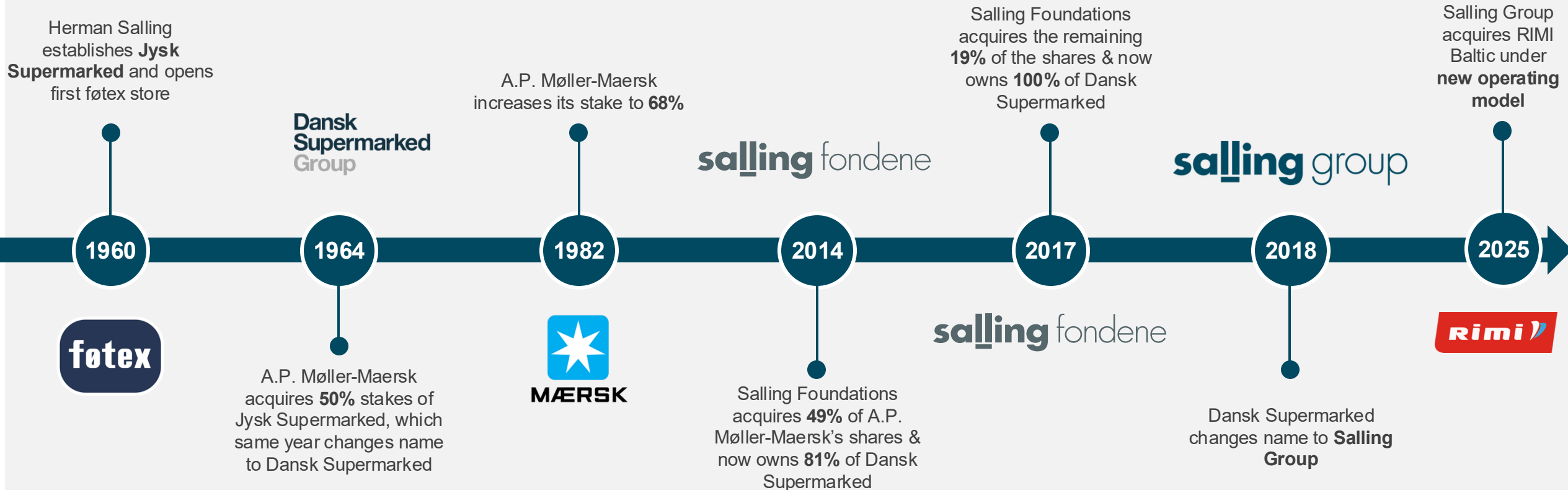
2100+ stores in Denmark,
Poland, Germany & Baltics



Herman Salling founded Salling Group in 1960, building on the legacy of his father Ferdinand Salling



Salling Group is today 100% owned by the Salling Foundations



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ONE GROUP

multiple retail formats



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S/4 ERP Program

Scope

- ❖ Bluefield
- ❖ General Ledger change
- ❖ Near-Zero-Downtime with 48-hour window at go-live
- ❖ Migration setting the pace of the program
- ❖ Several intensive test cycles
- ❖ Replicate new S4 model to CAR
- ❖ New hardware

Success criteria's

- ❖ Keep the service window
- ❖ Majority of users feel and see “no” difference first day in office
- ❖ No business-critical incidents

Test plan



Pentecost 2025

70 TB

SAP ECC system migrated

32 TB

SAP HANA ERP on premise

In 2026 the

32 TB

SAP HANA ERP will be migrated to SAP RISE

Organization



S/4 ERP Program

Platform

Hardware and Basis Installation

Migration

48 Hour Downtime
Migration of Systems and Data

Applications

Code Transformation, Adapt, Test

Organize & Enable
~10 Persons

Delivery Organization
~300 Persons

SAP Basis



Core Server
Infrastructure



Network



Identity
Management



ECO



Desktop



API Team



Supply Chain



Logistics



Store Operation &
Production



Sales



Purchase &
Masterdata



Promotion



Finance



BI Team A



HR &
Communication



Mobile



Integration



SAP Custom
Development



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Salling Group Custom Code Challenge

Custom Objects

30.812

Lines of Custom
Code normalized

1.897.053

Compatibility
Issues S/4HANA

11.363

Technical Debt
Issues

244K

New Objects
per Year

1.479

CHALLENGES

- **Highly customized** SAP System since 2011
- **High Custom Code change impact** moving to HANA and S/4HANA (small number of functional issues - 108)
- **Technical Debt** accumulated over years
- **Active development** ongoing in ECC

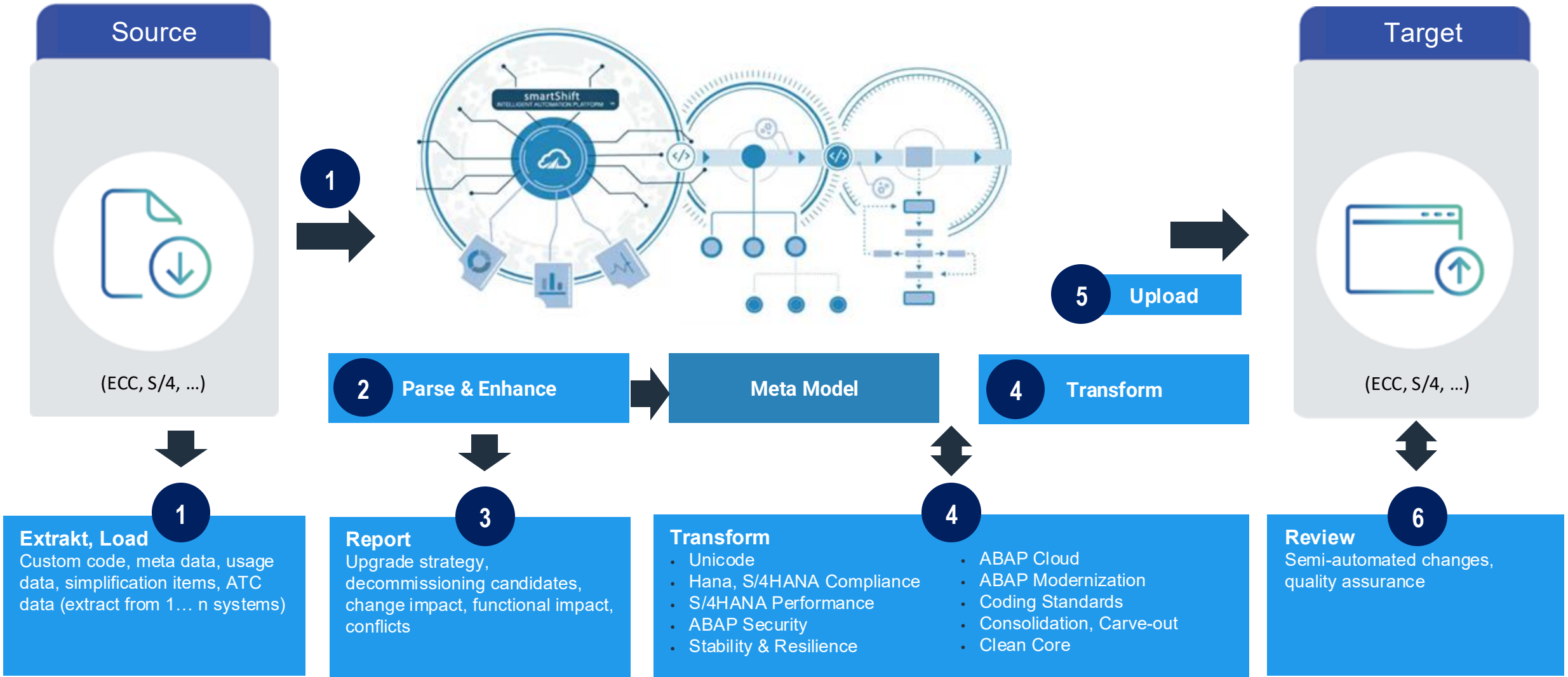
GOALS

- **De-risk and accelerate** the S/4HANA transformation
- **Relief internal teams** from mundane manual coding work
- **Minimize the business impact** during the transformation
- **Reduce technical debt** and **modernize** the code base

2023 Salling Group decided to collaborate with **smartShift Technologies** for Custom Code Remediation, Modernization and Dual Maintenance

smartShift Intelligent Automation Platform

Increase quality, performance and agility through intelligent, configurable automation



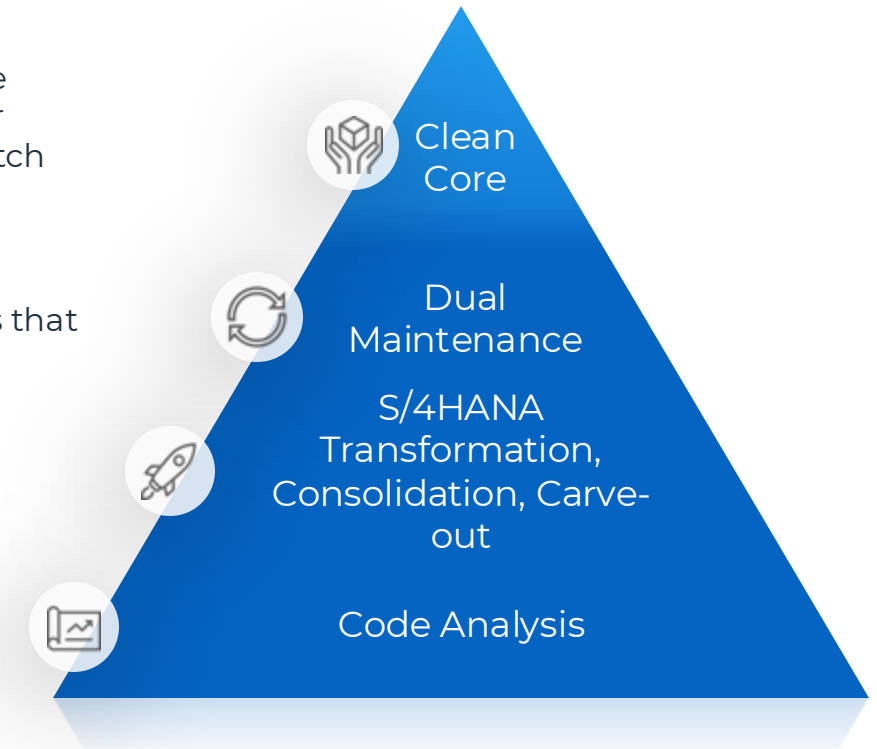


smartShift develops
and delivers automated
solutions to accelerate and
de-risk the transformation
of SAP custom code
and applications.

Clean Core Realization: Embrace modern SAP AND maximize prior investment vs. starting from scratch

smartShift Dual Maintenance: Eliminate risky manual processes that require code freeze and business disruption

Automated **Custom Code Analysis & Transformation** vs. tedious, risky, and incomplete manual refactoring of legacy code



smartShift Intelligent Automation®

Guaranteed Outcomes

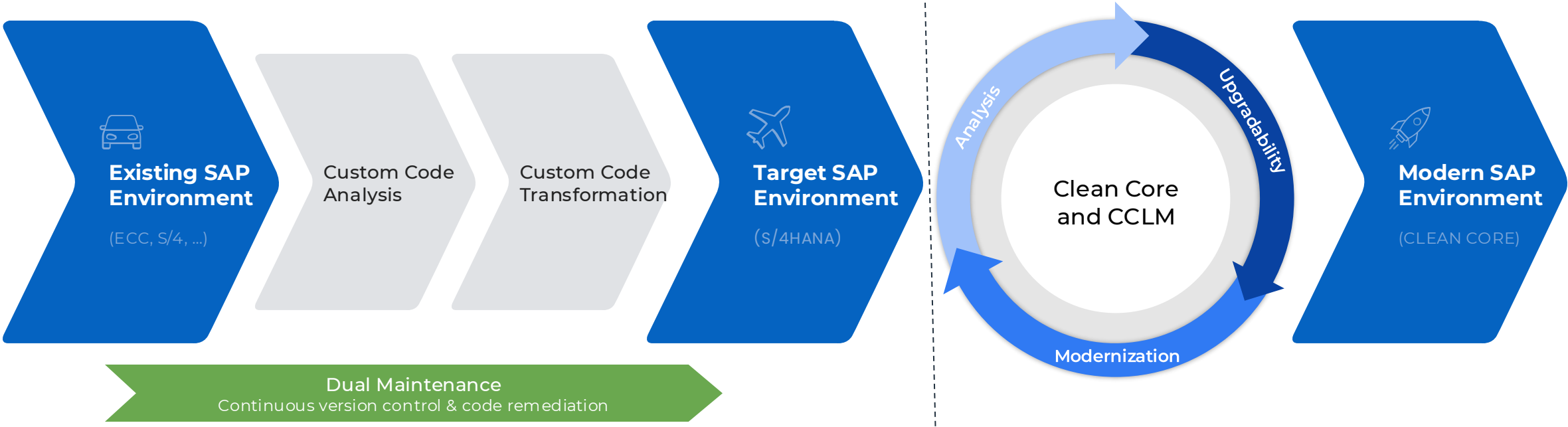
Guaranteed Timelines

Guaranteed SLAs

A Clean Core Approach

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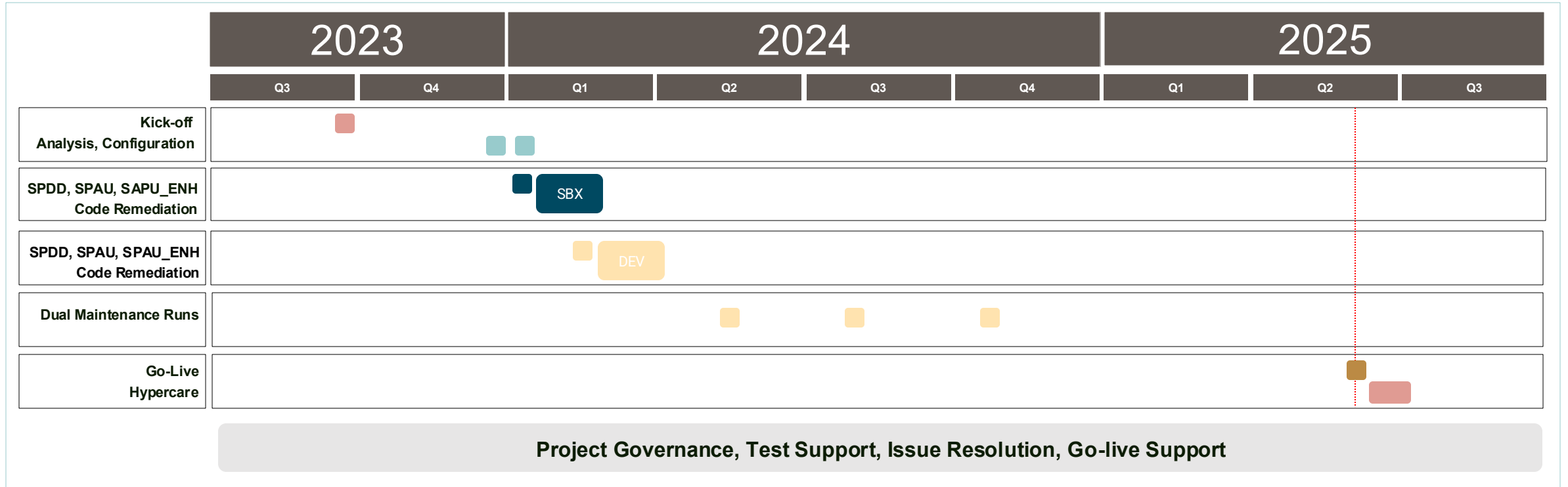
SAP S/4HANA 2023
Go-Live June 2025



S/4HANA Transformation and -Upgrade projects are an excellent opportunity to begin the process of adopting clean core principles by starting with decommissioning and other code transformation and optimization opportunities

Clean Core is a continuous modernization process with expected value achieved over time as standard and principles are adopted and new extensibility strategies are leveraged

smartShift Automation in Action



smartShift Scope:

- 2 Transformation Runs (SBX, DEV) Incl. SPDD, SPAU & technical validation
- 100% HANA / S/4 Compliance
- Comprehensive Code Modernization (250+ intelligent rules)
- Dual Maintenance Automation

smartShift Automation Results

Speed

Massive Acceleration

5 WEEKS

PER TRANSFORMATION

Coverage

S/4HANA Compliance

100%

ALL PRIORITIES (P1,P2,P3)

Precision

Extreme high quality

12

DEFECTS IN TESTING

Agility

Dual Maintenance

1.810

OBJECTS RETROFITTED

ISSUES ADDRESSED

(per Transformation Category)

S/4HANA / HANA Compatibility	11.363
S/4HANA Performance	59.683
Coding Standards	25.691
ABAP Modernization	83.684
Security	5.355
ABAP Cloud	70.437
Total	256.213

FURTHER AUTOMATION BENEFITS

- ✓ Fully converted Sandbox system enabled **early testing**
- ✓ **Internal teams** could focus on innovation and critical functional work
- ✓ **Code modernization** is achieved without adding additional risk
- ✓ Automated dual maintenance **reduced system freeze, enables business agility**

“With smartShift we got speed, code consistency and reduced overall project risk”

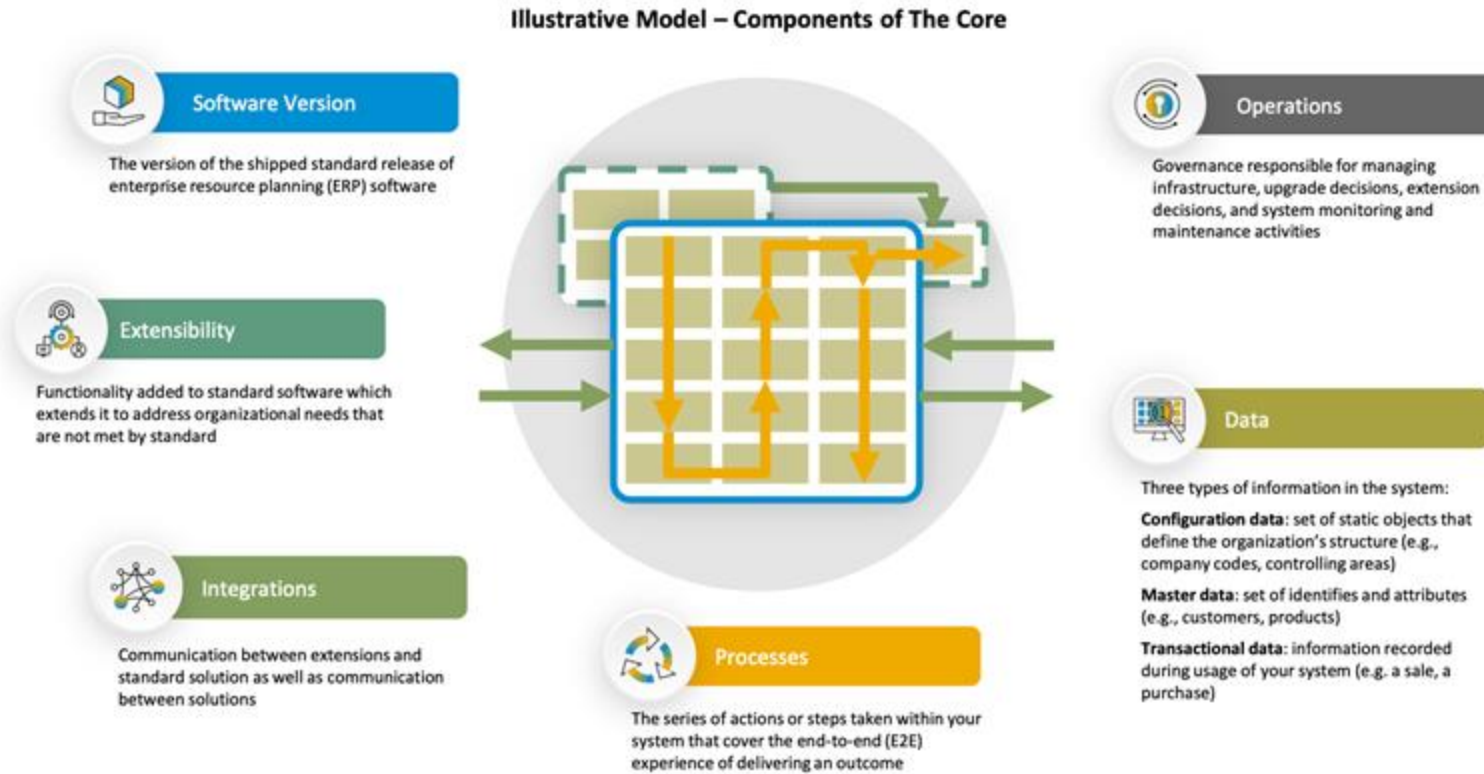
*Lars Jeppesen
Salling Group*

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Clean Core – Big Picture



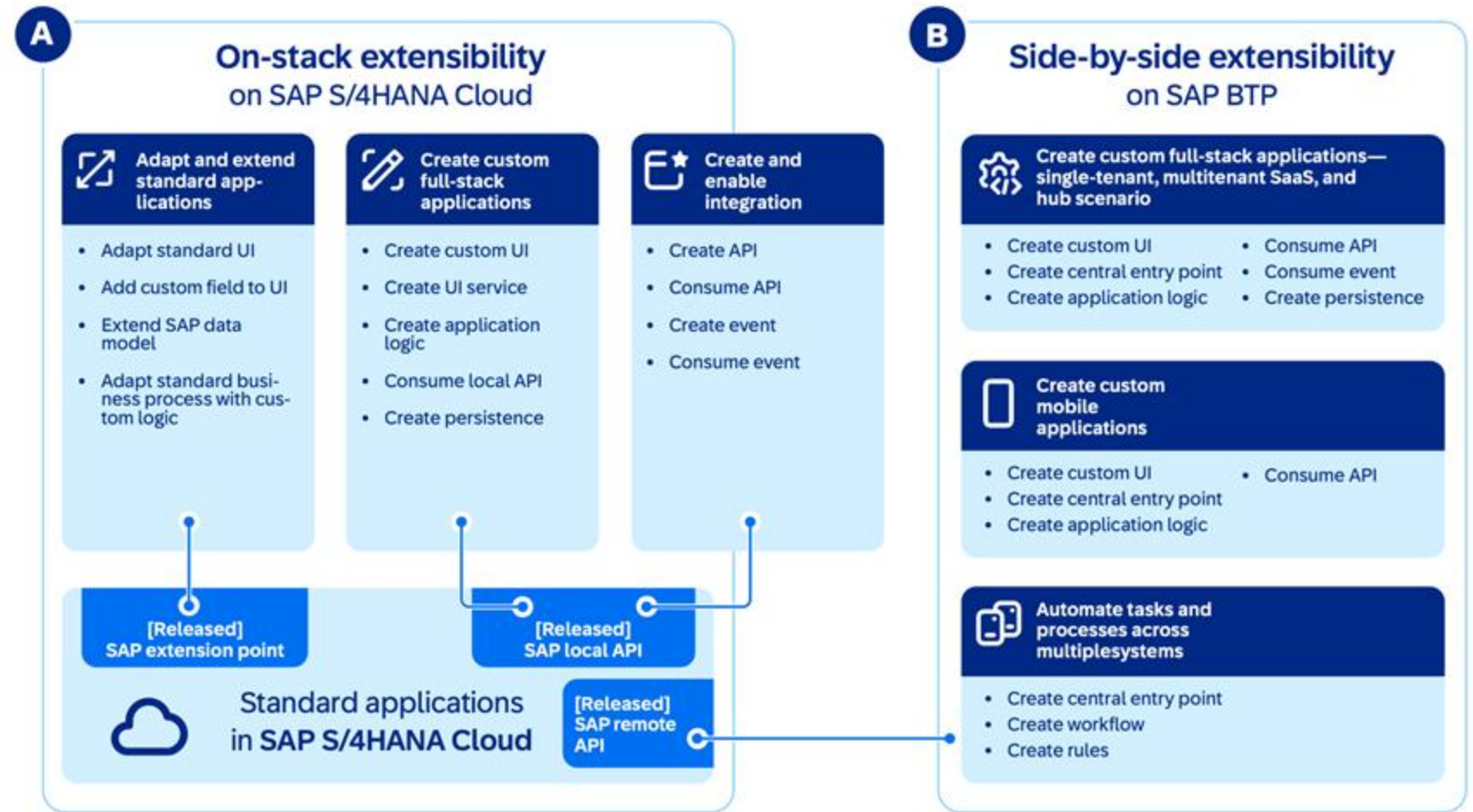
ASUC Tech Connect 2023 - Clean Core What It Is and Why Do It and How do I get There

“Clean core is both a concept and an approach to achieve a modern, flexible, and cloud-compliant SAP S/4HANA Cloud. Clean core is achieved by integration and extending SAP S/4HANA Cloud in such a way that it is cloud-compliant, with optimal master data quality and perfected business process governance.”

SAP S/4HANA Extensibility - Big Picture

The concept of Clean Core for SAP On-Premise / Private Cloud customers originated with the Extensibility model designed for for S/4HANA Public cloud.

It provides a framework for building modern applications, with the upgrade stability required in SaaS / Multi-Tenant environments



SAP S/4HANA Extensibility - Addressing Classic ABAP

SAP has recently extended Clean Core and Extensibility guidance for customers as they consider the future:

- Ensuring Upgrade Stability of classic applications
- Building of new applications
- Continuous Modernization of the Classic Repository

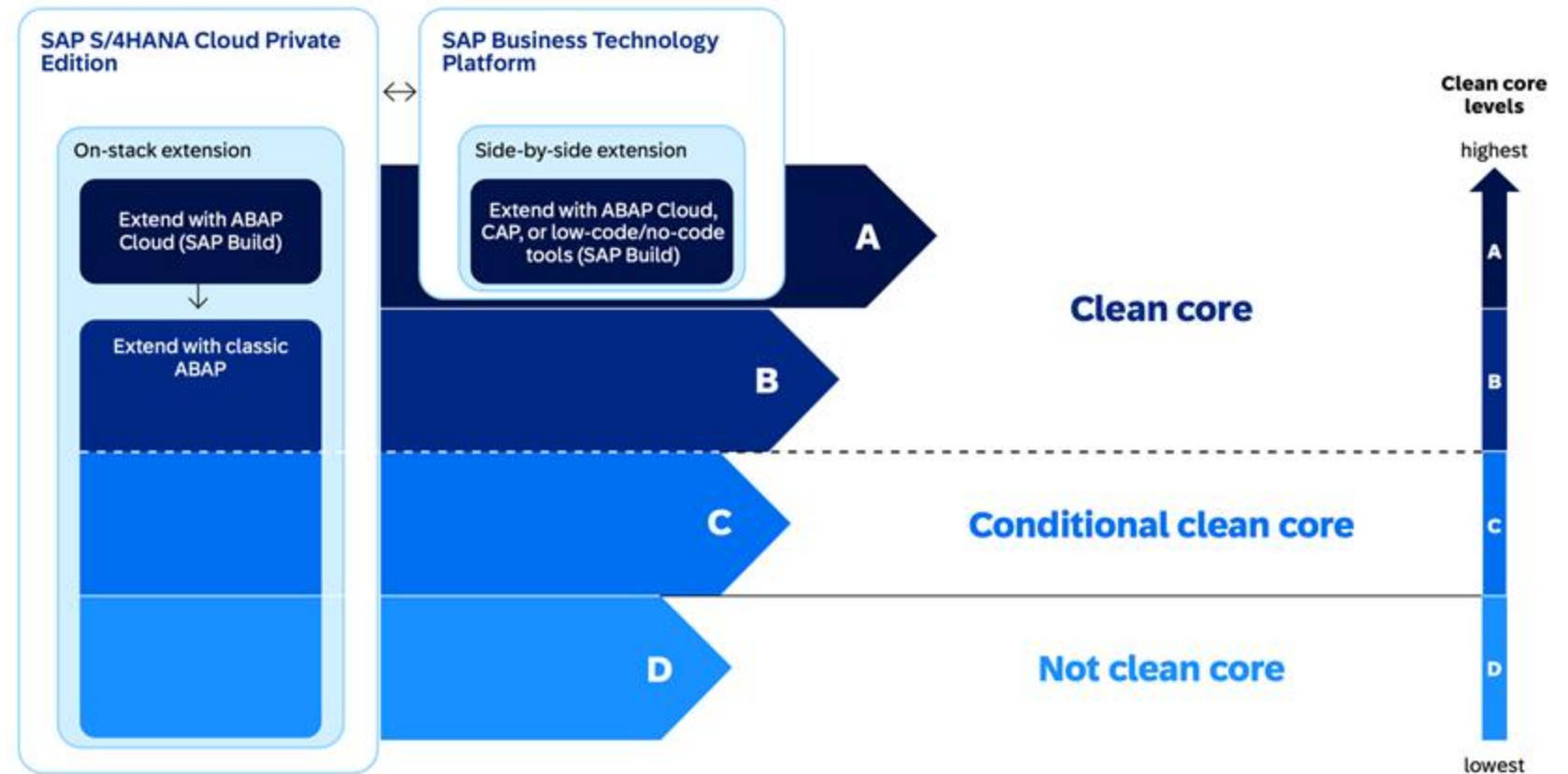


Figure 4: Clean core levels

SAP Build includes AI-enhanced pro-code and low-code tools for on-stack and side-by-side application development and process automation.

Elements of a Holistic Clean Core Approach

Define Your Clean Core Goals

- Define your **Clean Core Goals** (Cloud, Upgradeability, ...)
- Define **Metrics** to measure **Success**



Get Visibility and Understand your Estate

- **Identify all Customizations and Applications** in your Repository
- Understand **detailed attributes and characteristics** about each application
- Understand the **critical issues** in your classic customizations



Make sure You Stay Clean

- Establish **Development Standards** and Establish **Governance**
- Invest in **Training** your Team



Start to Get Clean(er)

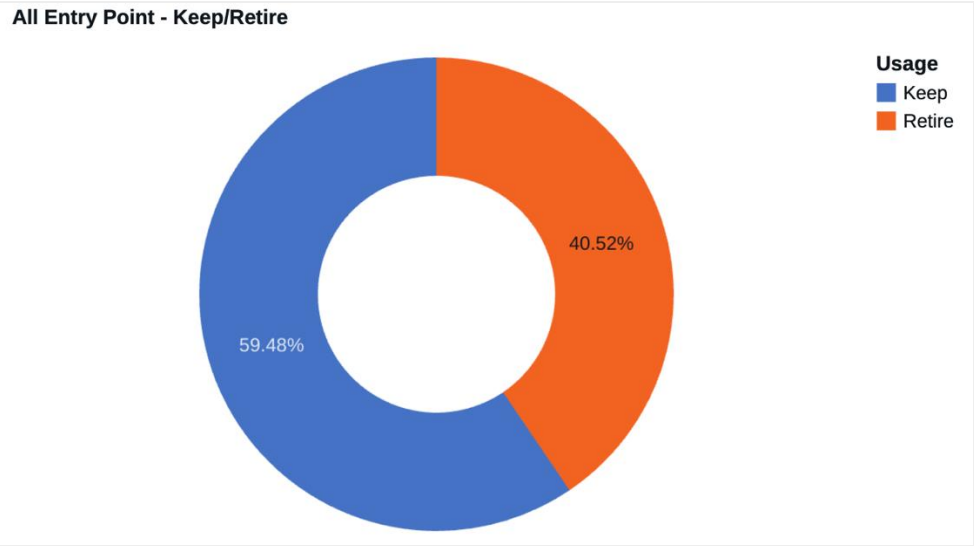
- **Decommission** unused Customizations
- Replace with **SAP-Standard** when possible
- Improve the **Upgradeability** of your Customizations (D → C → B / → A)
- Move to **Cloud-Ready**



Clean Core Analysis Results – Entry Point Analysis

System Info		Custom Code Repository		Lines Of Code		Overall Custom Repository	
UNICODE							
SAP S/4HANA FOUNDATION 2023		/DSRT/*,Z* 34,133		2,779,261 1,939,630		50,687	
SAP Basis 758, AP... HDB 2.00.075.00.1...		Namespaces Custom Code Analyzed Objects		Total Normalized		Total Custom Repository Object	

Total Entry points **3,889**



Entry Point - Definition

An Entry Point represents a grouping of SAP ABAP repository objects that collectively define a single application or extension. Each Entry Point can have a distinct target state aligned with SAP Clean Core Extensibility guidelines. (Examples of Entry Points: Custom Programs, Enhancement Framework Objects, Interface Objects, Forms, Workflow & Business Objects)

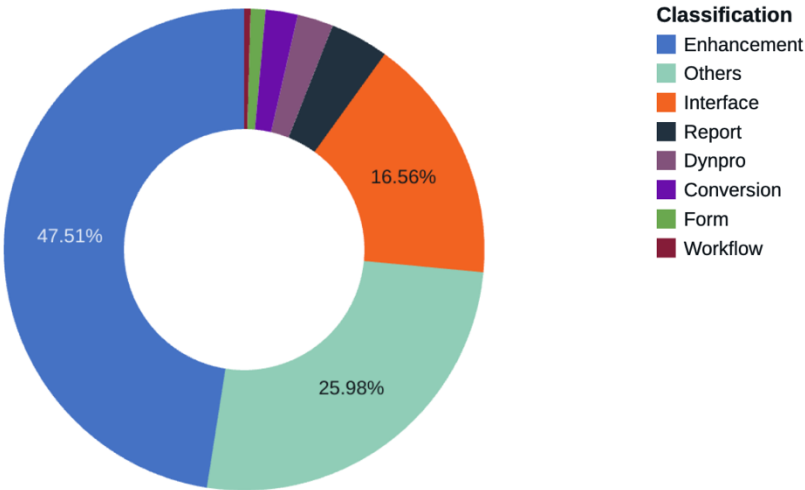
Entry Point Analysis – RICEFWD Classification

RICEFWD Classification

Each entry point is analyzed against smartShift characteristic engine to identify key attributes about those objects and assign an RICEFWD classification.

In addition, usage data is applied to understand the decommissioning potential of each RICEFWD grouping.

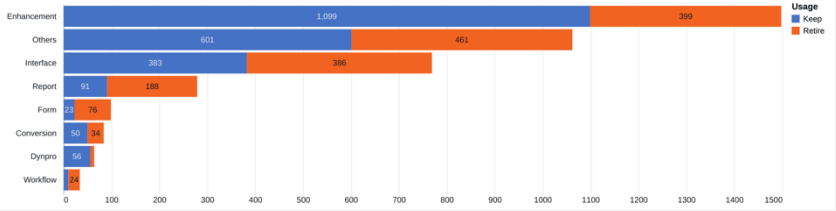
RICEFWD - Objects to Keep



RICEFWD - Total Counts

Classification	Keep	Retire	Total
Conversion	50	34	84
Dynpro	56	8	64
Interface	383	386	769
Report	91	188	279
Form	23	76	99
Others	601	461	1,062
Enhancement	1099	399	1,498
Workflow	10	24	34
Total	2313	1576	3,889

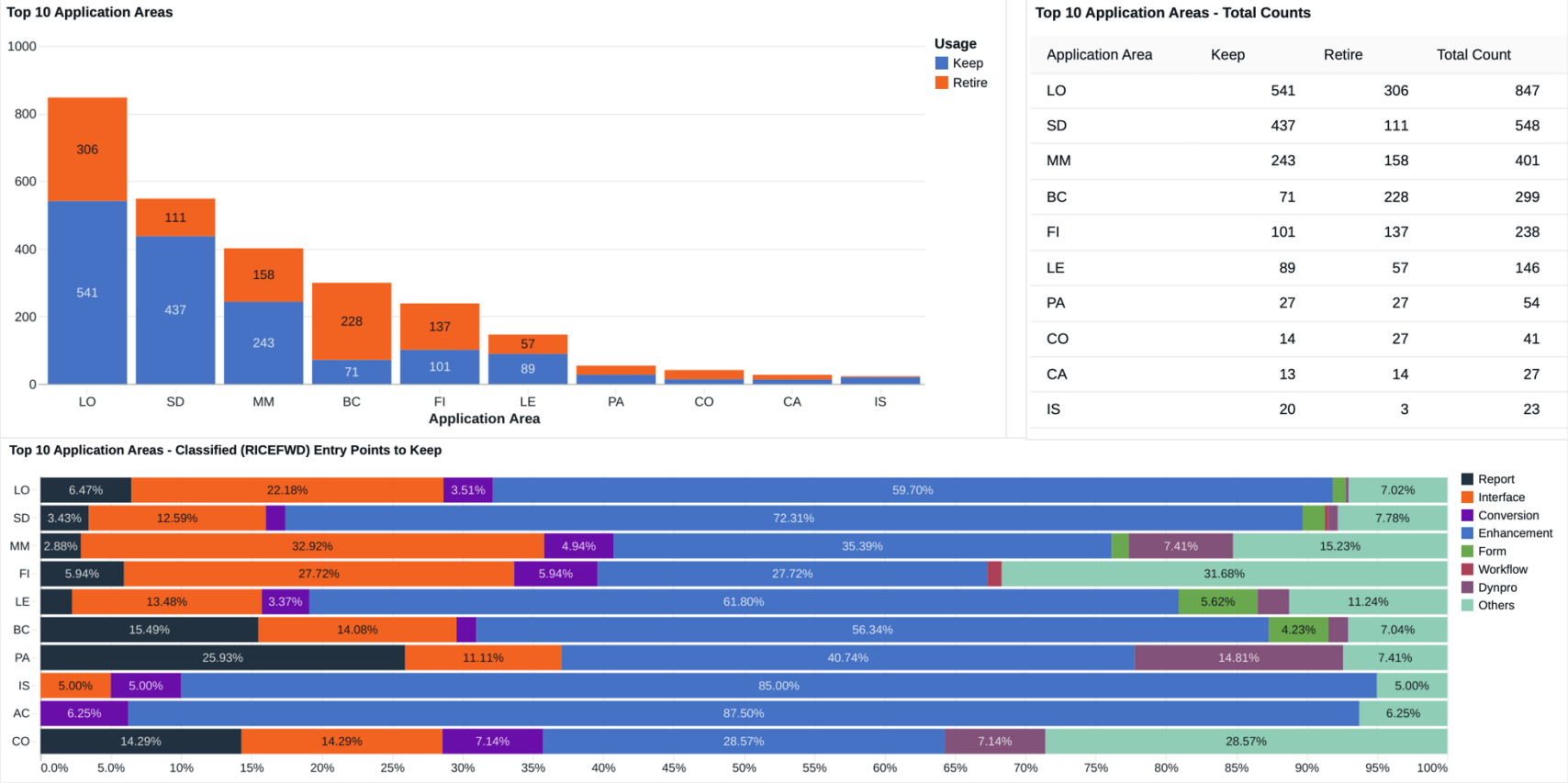
RICEFWD - Keep/Retire



Entry Point Analysis – Top 10 Application Areas

Application Area Analysis

For each entry point, smartShift analyzed SAP Technical dependencies, and the Application Area assigned to each dependency. Then leveraging a proprietary algorithm derived the best match for the top-level Application Area.

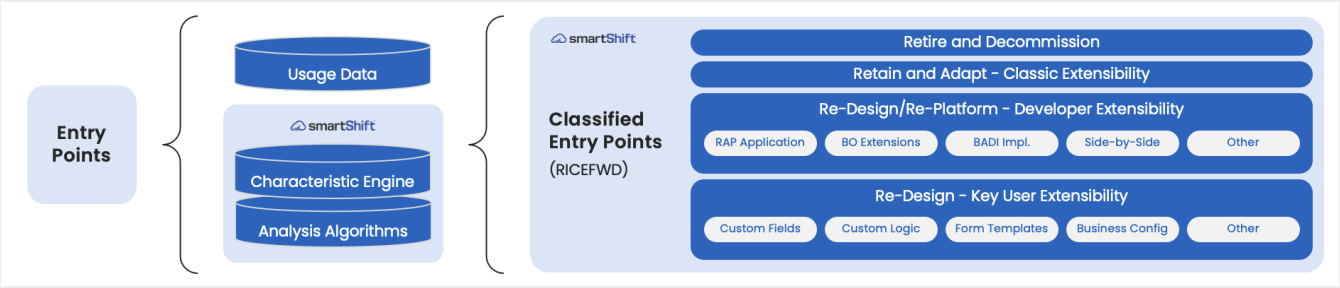
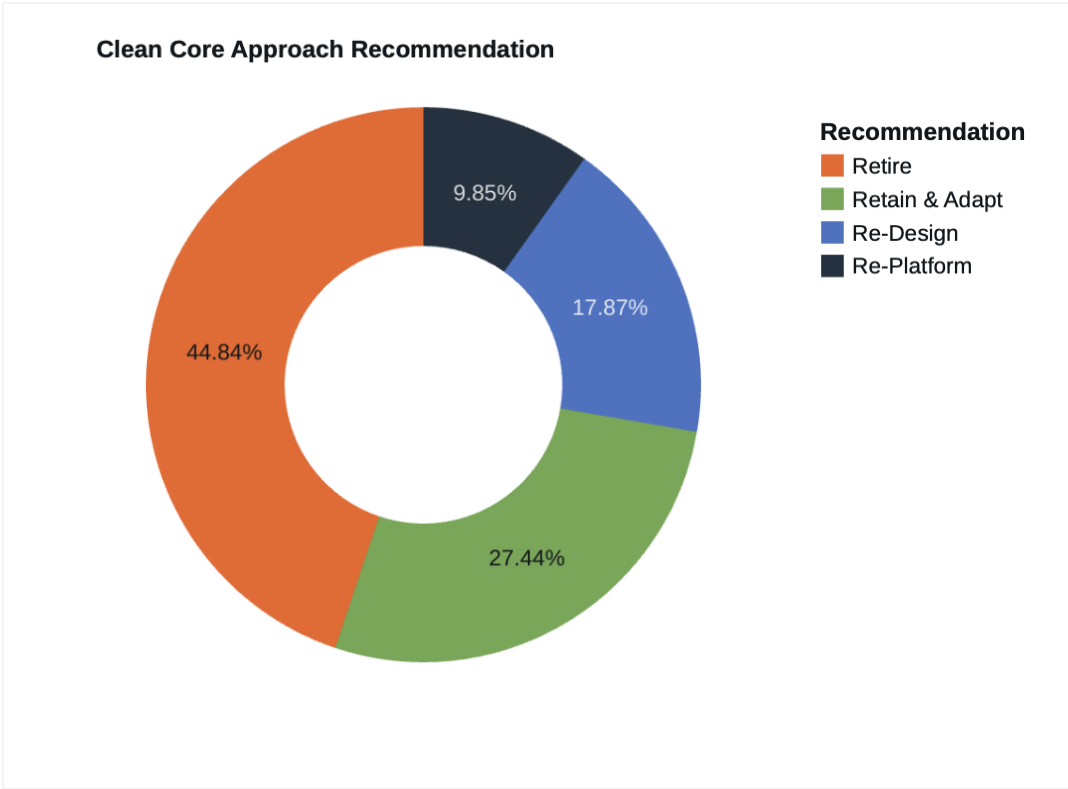


Clean Core Recommendations

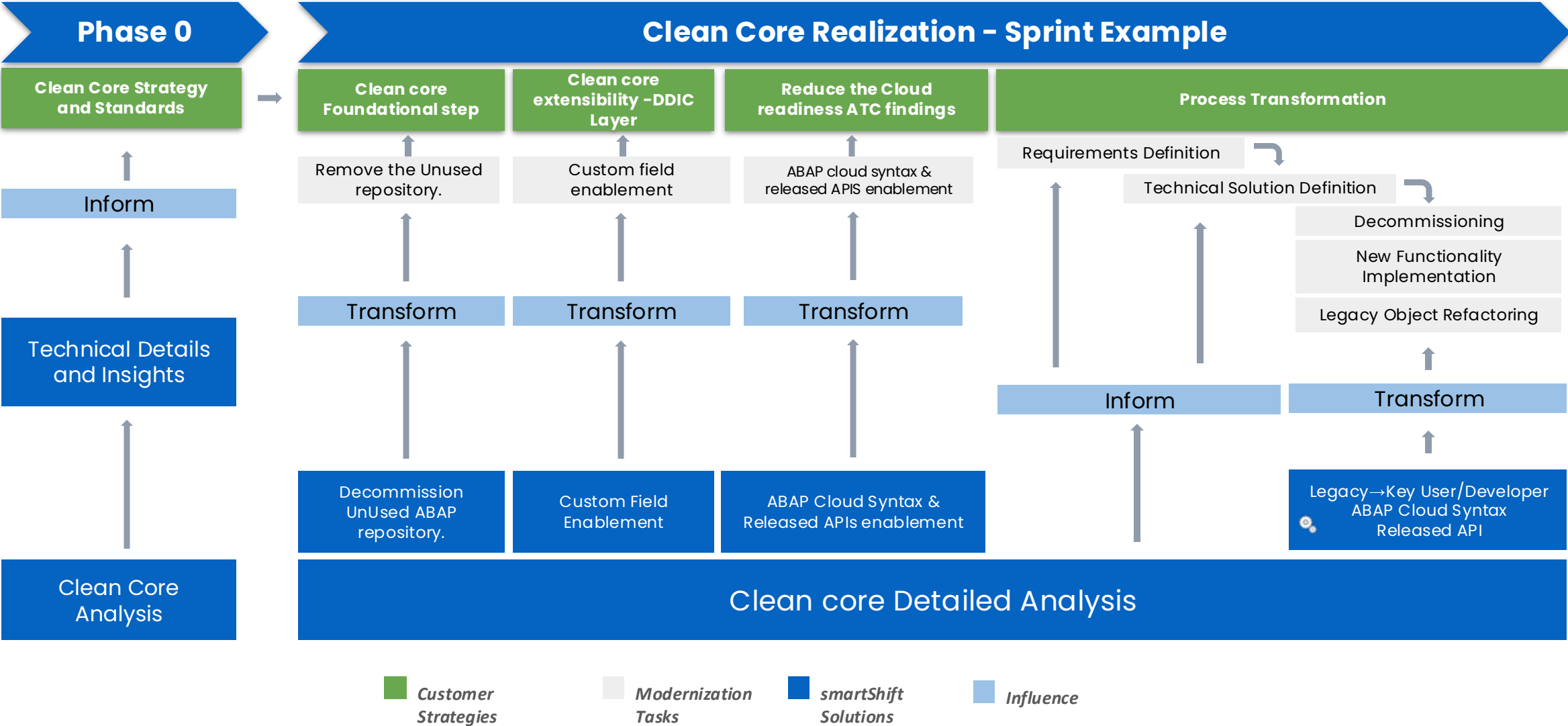
Recommendation Engine

For each entry point, smartShift performs an in-depth analysis of Entry Point types, characteristics and functionality to assign a high-level Clean Core Recommendation, meant to indicate a general approach to transformation that could be leveraged for segmentation and transformation scoping discussions.

Retire	Unused or inactive entry points that can be decommissioned
Redesign	Entry points that should be re-designed and re-architected and moved to Key User or Developer extensibility paradigms
Retain & Adapt	Complex entry points that should remain on the S/4HANA core and adapted with Cloud compliant syntax and released APIs
Re-Platform	Entry points that could be moved out of the S/4HANA core and re-platformed to BTP or other cloud platforms; e.g. Interfaces to be moved to BTP Integration Suite



Potential Clean Core Roadmap



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Questions?

Meet the smartShift Team: Booth #G3



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