



SAP S/4HANA Implementation Journey

AUTHOR: MAINAK MUKHERJEE

(E) MAINAK.MUKHERJEE@GMAIL.COM

(M) +91 99030 11180

Agenda

01

Road to S/4HANA

02

S/4HANA with SAP
Activate

03

Template Solution
Approach

04

Scoping, Design &
Build

05

Testing & Defect
Management

06

Data Standardization
& Data Migration

07

Training

08

Cutover

09

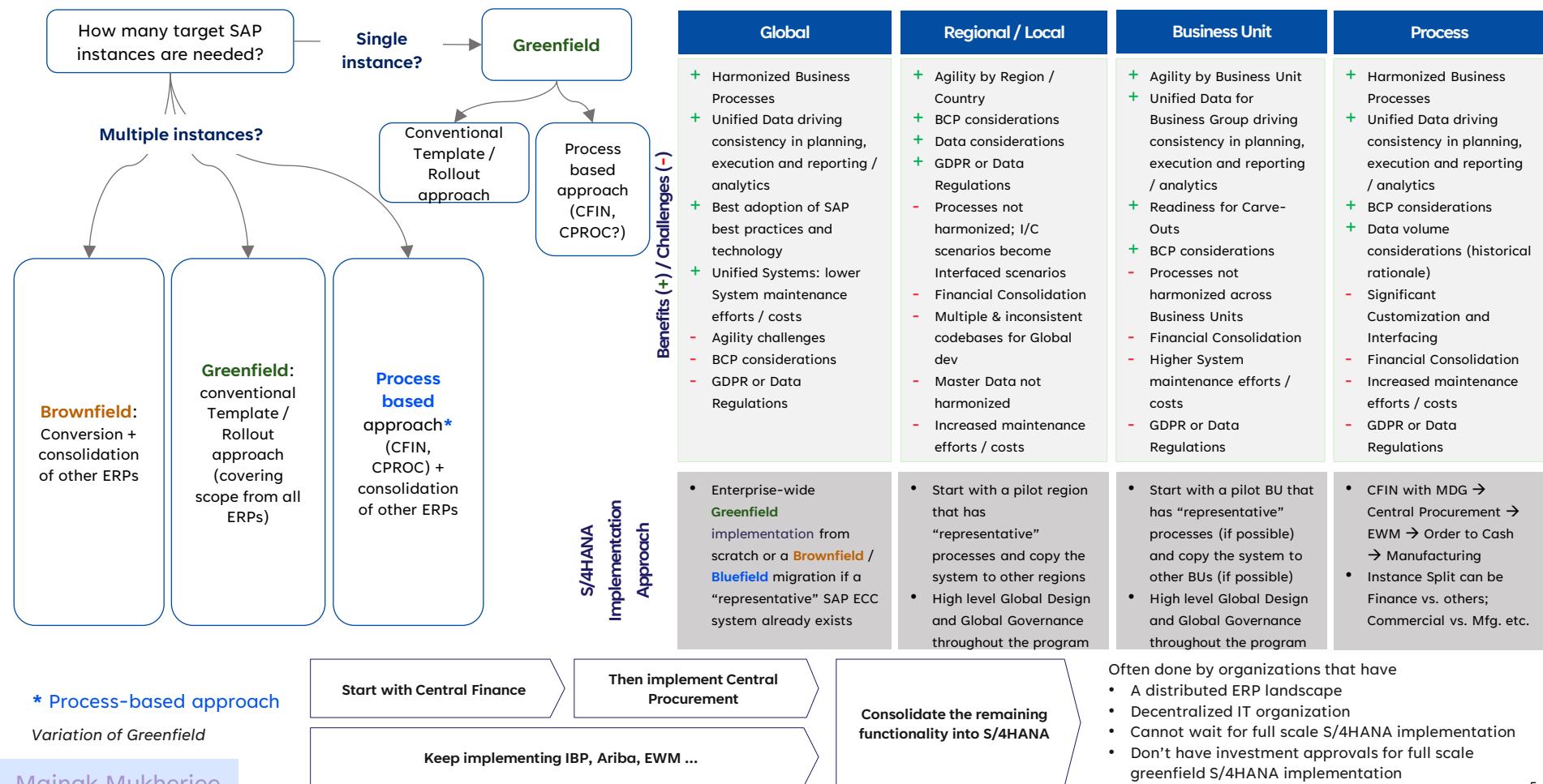
Go-Live Readiness Check

Road to S/4HANA

Approach to SAP S/4HANA - Greenfield, Brownfield, Bluefield

	GREENFIELD	BROWNFIELD	BLUEFIELD
Definition	Build a New System from scratch	Upgrade / Convert existing ECC system and implement mandatory adjustments for S/4HANA followed by Improvement releases	Build a New System with existing Org / Config / Code, migrate data selectively and go with phased (multiple) go-lives
Approach	<ul style="list-style-type: none"> Start / Build a New System from scratch Leverage SAP Best Practices and maximize standardization Create templates and then roll-out Phased implementation with multiple go-lives Interim process link between the 2 (or more) systems 	<ul style="list-style-type: none"> Upgrade / Convert existing ECC system Leverage existing functionalities Do mandatory adjustments for S/4HANA Include some non-mandatory enhancements Big-bang go-live Progressively adopt full S/4HANA potential 	<ul style="list-style-type: none"> Mix of Greenfield and Brownfield Implemented with a partnership with SNP Start with a blank copy (empty shell) S/4HANA System containing existing organization structure / configurations / customizations Phased implementation with multiple go-lives Progressively adopt full S/4HANA potential
Decision Drivers	<ul style="list-style-type: none"> Old and / or multiple ECC and other ERPs Full-scale Business Process Re-engineering (BPR) followed by SAP implementation Review & re-design existing processes with minimal-to-no customizations Enhanced data set enabled for analytics 	<ul style="list-style-type: none"> Organizations with recent ECC investments Single instance of ECC Retain existing custom developments with almost no process changes Retain old data with no enhancements 	<ul style="list-style-type: none"> Organizations with recent ECC investments Retain existing custom developments with minimal process changes Retain old data with minimal enhancements Phased go-live
Benefits	<ul style="list-style-type: none"> Higher adoption of industry Best Practices, Fiori apps, Analytics, AI and other latest features Increased standardization & simplification of business processes and data with reduced customizations 	<ul style="list-style-type: none"> Minimized timelines, efforts, costs and risks (assuming the right preparations are made) Lowest complexity and business impact Moderate transition timeline No data migration expected 	<ul style="list-style-type: none"> Timelines, efforts, costs and risks are lesser than greenfield but greater than brownfield Flexible adoption of old processes into new system with standardization & modernization Can have a fresh start for master data
Challenges	<ul style="list-style-type: none"> Higher efforts, costs and risks; longer timelines Higher Change mgmt. & adoption efforts Limited historical data More complex consolidation 	<ul style="list-style-type: none"> Minimum standardization & modernization of current business processes 	<ul style="list-style-type: none"> Master & Transactional data migration needed Complexity with interim processes and migration Limited historical data More complex consolidation

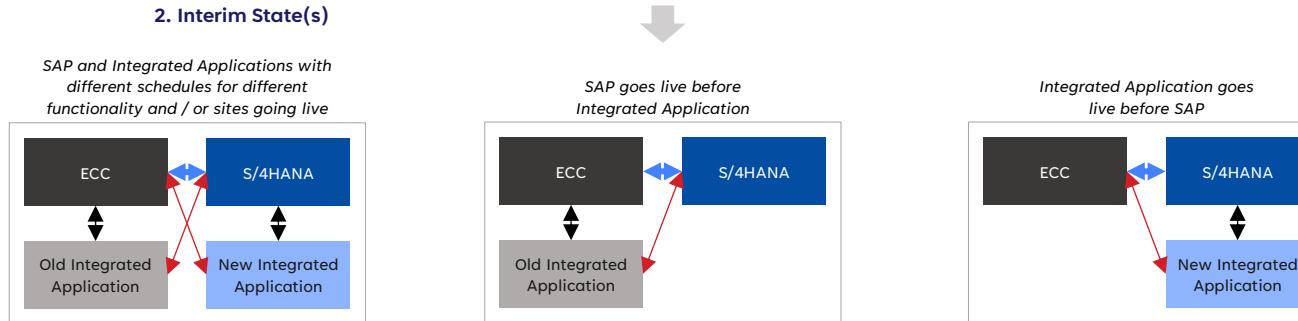
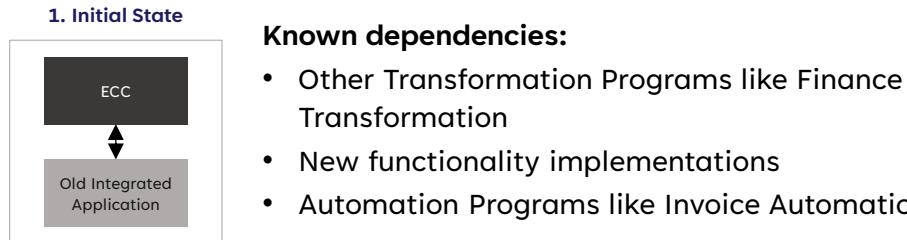
Approach to SAP S/4HANA – Instance based approach



ECC to SAP S/4HANA

Interim Architecture with integrated applications

Very often, **SAP S/4HANA implementations are accompanied with implementations / rollouts of other integrated applications**. This results in interim architectures and deployment dependencies.



↔ Existing / Steady State Integration

↔ Interim Integration (until a site is live on both SAP and Integrated Application)

↔ Process based Integration (intermediate) until S/4HANA goes live fully. For example, ATP scenarios highlighted by RS already

3. End State

Approach to SAP S/4HANA – Building a Business Case

	Current State & Vision	S/4HANA Exploration	Future State Architecture	Migration & Roadmap	Plan Projects
Value Delivery	Understand business strategy and align on S/4HANA vision	Align / Agree on key value drivers and define initial business case	Define KPI & Metrics to measure value of the new SAP S/4HANA landscape	Finalize business case for the new S/4HANA landscape	Approve business case and preparation for S/4HANA business transformation program
Business Improvement	Understand current business model and operating model	Verify S/4HANA value vis-à-vis current processes and identify process improvement scenarios	Define L1 – L3 process model architecture for either “One Company” or “One Business”	Define preferred “One Company” or “One Business” standardization & migration scenario	Plan S/4HANA Implementation & Roll Outs
Technology Realization	Understand current IT landscape and application model	Understand S/4HANA functionality and perform high-level technical assessment	Define L1 – L3 “One Company” or “One Business” S/4HANA application model	Perform detailed readiness check and define preferred application roadmap	Plan S/4HANA Implementation & Roll Outs

Project Management and Change Management

S/4HANA with SAP Activate

S/4HANA Implementation with SAP Activate – Approach [1 / 2]

Discover & Prepare		Explore
Key Objectives	<ul style="list-style-type: none">• Process & Application Capability Assessment• Target / TO-BE state alignment	<ul style="list-style-type: none">• Business Process and Data Design for the Target / TO-BE state
Key Tasks	<ul style="list-style-type: none">• Prepare & Mobilize• Understanding Current application Ecosystem• Understanding Current state [Process & Data]• Understanding Target state expectations	<ul style="list-style-type: none">• Solution Design for Process and Data• Design of Roles & Authorization
Key Milestones	<ul style="list-style-type: none">• Completion of Process & Application Capability Assessment• Process Alignment• S/4HANA solutions to Target State Map• MVP Alignment• Strategy for Testing, Cutover, Data Migration and Deployment	<ul style="list-style-type: none">• Finalized User Stories / Business User Requirements• Business Process Map• Process and Data Design• Roles & Authorization Map• Validated Project Plan for Realize and Deploy phases
Key Deliverables	<ul style="list-style-type: none">• Business Case, including benefits and benefit measurements• Target state alignment with Target Architecture Definition• Application Rationalization Report• MVP Scope• Strategy for Testing, Cutover, Data Migration and Deployment• Business Process Master List (BPML)• High-Level Project Plan• Governance processes	<ul style="list-style-type: none">• Business Process Master List (BPML)• Key Design Decisions (KDDs), Business Process Design (BPD), Functional Specifications (FS), Configuration Specifications (CS), Solution Fit-Gap and Requirement Traceability Matrix (RTM)• Finalized Test Cases• User Roles & Authorization Map• Finalized Data Load Templates• Finalized Cutover Templates• Business Cutover Plan• Business Continuity Plan

S/4HANA Implementation with SAP Activate – Approach [2 / 2]

Realize		Deploy & Run
Key Objectives	<ul style="list-style-type: none">Solution Readiness for Target / TO-BE SAP System	<ul style="list-style-type: none">Deploy the Target / TO-BE solution for Business UsersStabilize the Solution
Key Tasks	<ul style="list-style-type: none">Completion of Technical Design for gapsCompletion of RICEFW developments and System ConfigurationsTrain-The-Trainer (TTT) for Super UsersMock Data Load 1 prior to SIT startMock Data Load 2 prior to UAT startSIT and UAT ExecutionBusiness Cutover Rehearsal	<ul style="list-style-type: none">End User TrainingActual CutoverProduction Data LoadHypercare Support
Key Milestones	<ul style="list-style-type: none">Build CompletionTest System ReadinessTTT Completion (for Super Users)Mock Data Load 1 CompletionSIT CompletionMock Data Load 2 CompletionUAT CompletionCutover Rehearsal Completion	<ul style="list-style-type: none">EUT CompletionActual Cutover CompletionProduction Data Load CompletionGo-LiveHypercare Completion
Key Deliverables	<ul style="list-style-type: none">Technical Specifications for all RICEFW / BTP developmentsUpdated Business Process Design (BPD), Functional Specifications (FS), Configuration Specifications (CS), Solution Fit-Gap and Requirement Traceability Matrix (RTM)Updated Test CasesTest Execution Plans for SIT and UATUpdated User Roles & Authorization MapData Quality ReportMock Data Load ReportCutover Rehearsal Report	<ul style="list-style-type: none">Actual Cutover ReportProduction Data Load ReportMilestone Checkpoint ReportHypercare Report

Template Solution Approach

Global Template & Roll Out Approach



The Global Template (GT) to be designed & built based on standardized business processes and data as identified by the organization.



The GT solution to be adopted by all sites and business functions in scope of the transformation program



During (or prior to) the GT Solution Design, all existing legacy and 3rd Party applications to be assessed either for retirement or for the need to integrate with S/4HANA



Any site or business specific process and/or data requirements to be addressed as part of the Release deployments without impact to the GT Design



Every Legal Entity in a Release to adopt the Global Template Solution.



Site, business and country-specific statutory and regulatory processes to be designed & built and added to the Global Template Solution.

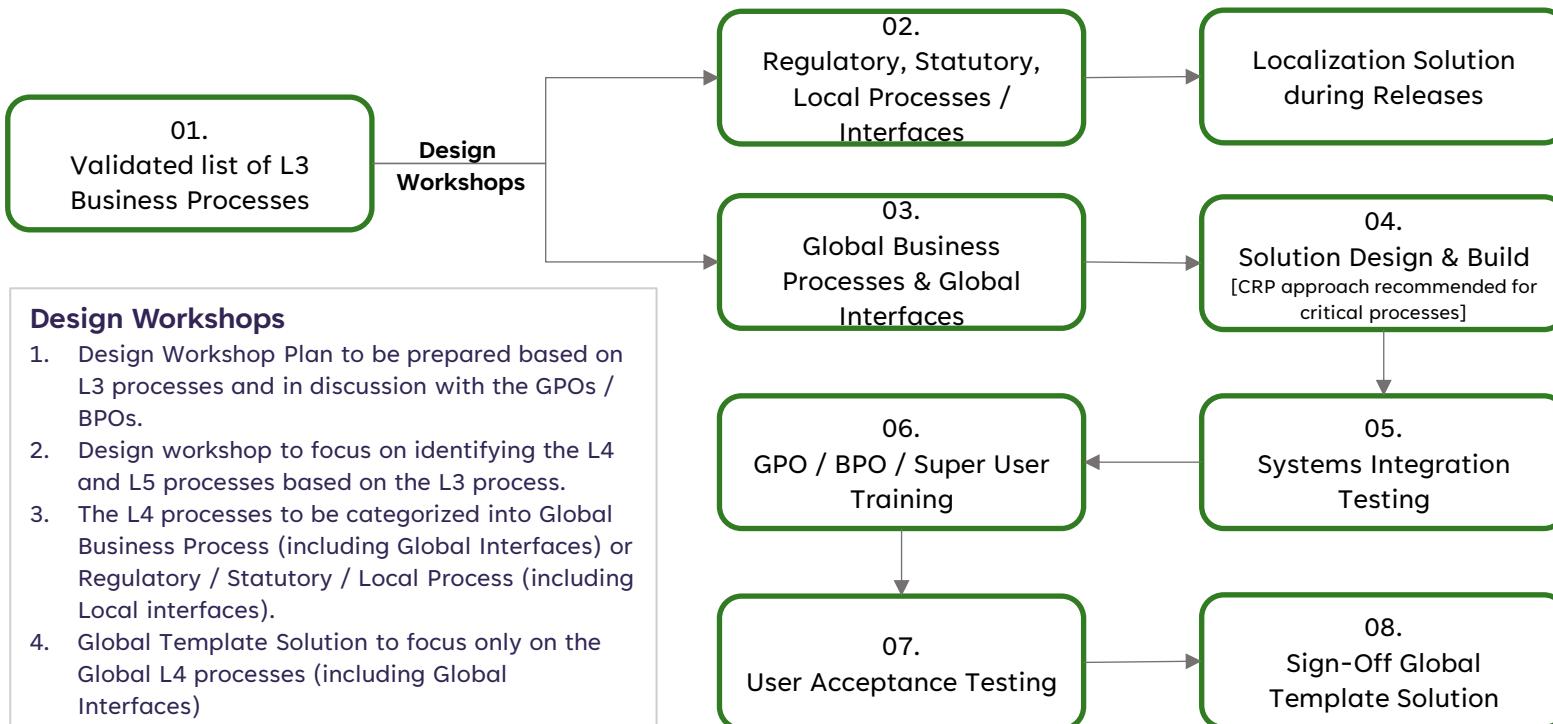


Site or business-specific localized processes, including interfacing requirements, to be reviewed for its impact to the Global Template Solution. The Impact Assessment (IA) to focus on GT Solution Integrity, Schedule, Cost and Maintainability. Based on the IA, business to approve or reject the inclusion request in the Global Template Solution.

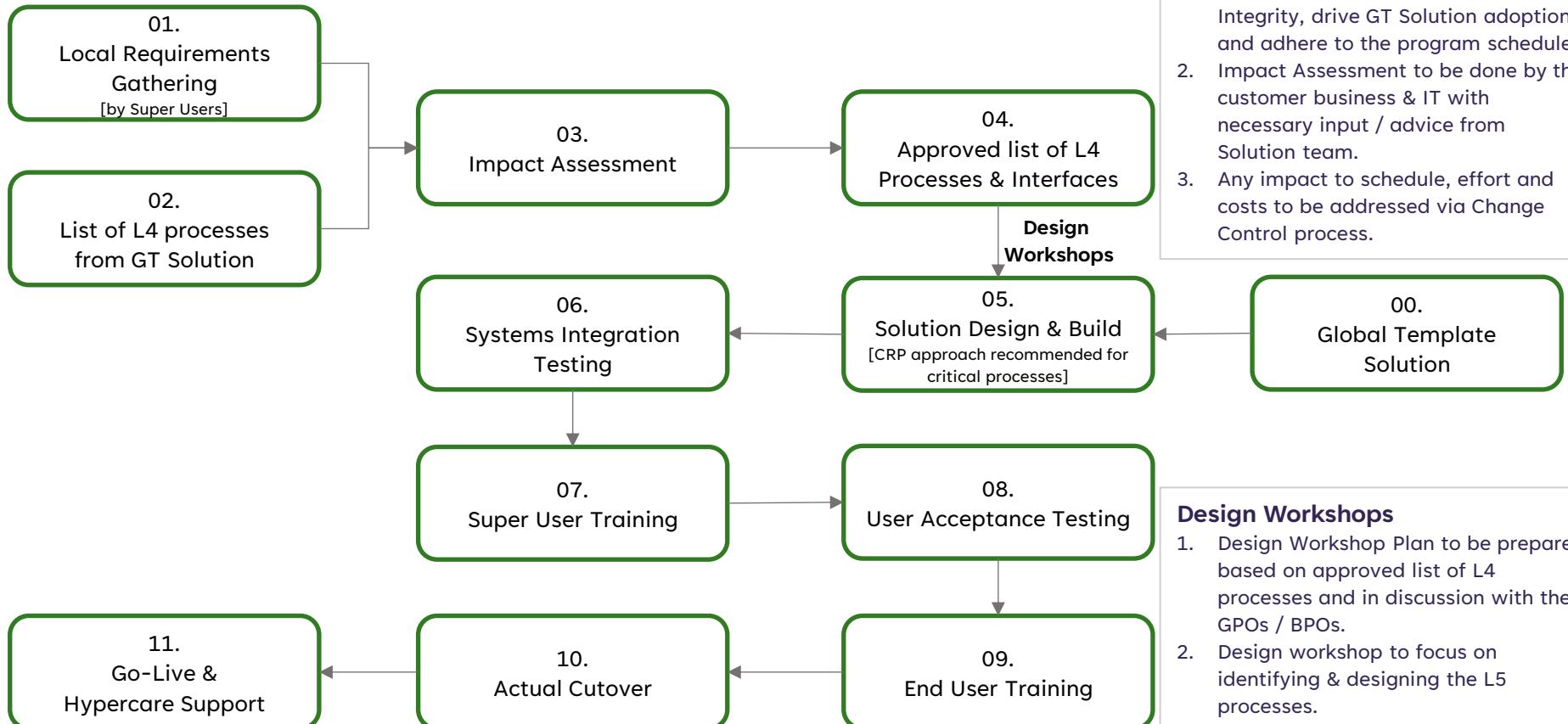


Any request for change to the Global Template solution during the Release to be governed by the Change Control process.

Global Template Solution



Release / Local Solution



Impact Assessment

1. The objective of Impact Assessment is to maintain Global Template Integrity, drive GT Solution adoption and adhere to the program schedule.
2. Impact Assessment to be done by the customer business & IT with necessary input / advice from Solution team.
3. Any impact to schedule, effort and costs to be addressed via Change Control process.

00.

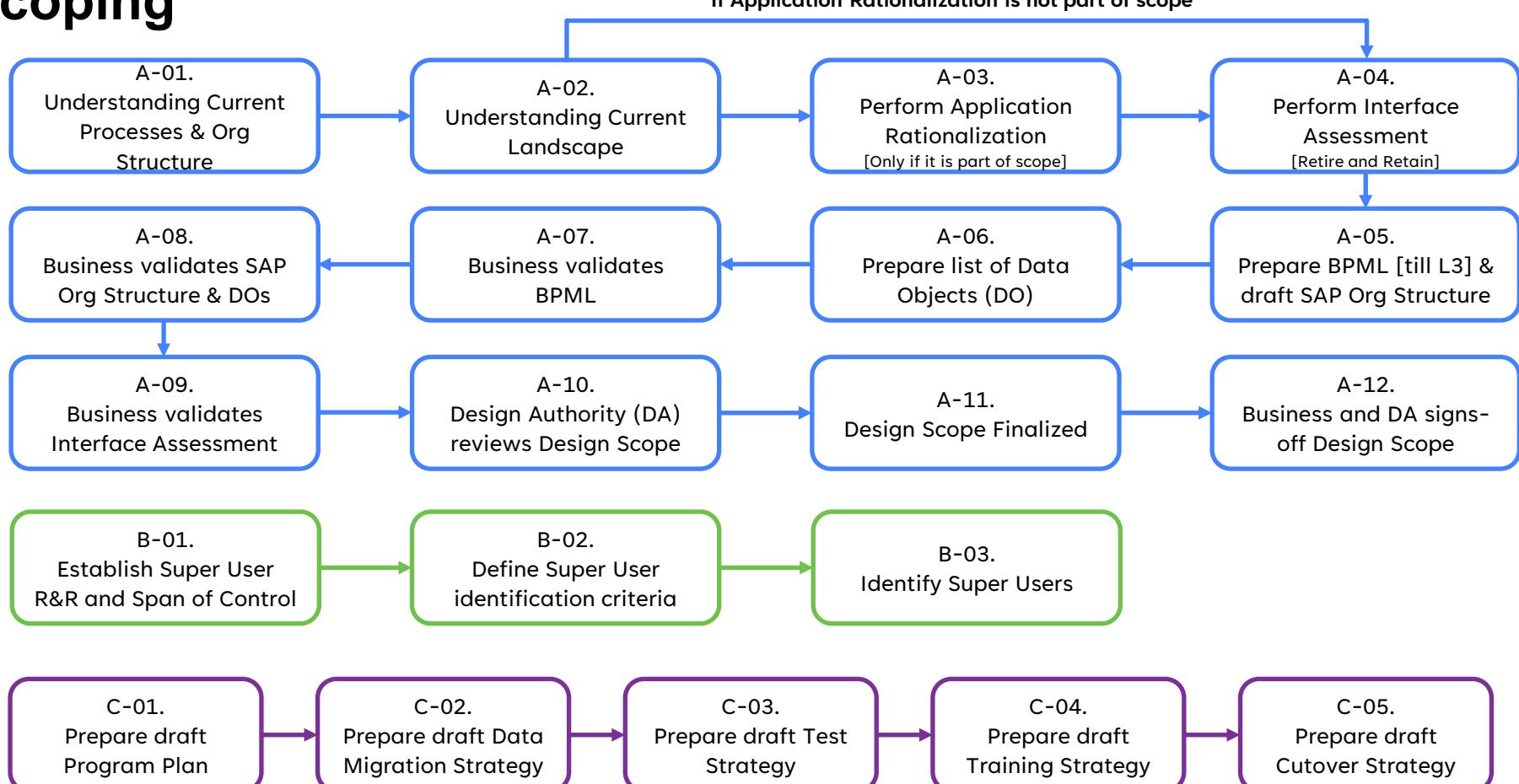
Global Template
Solution

Design Workshops

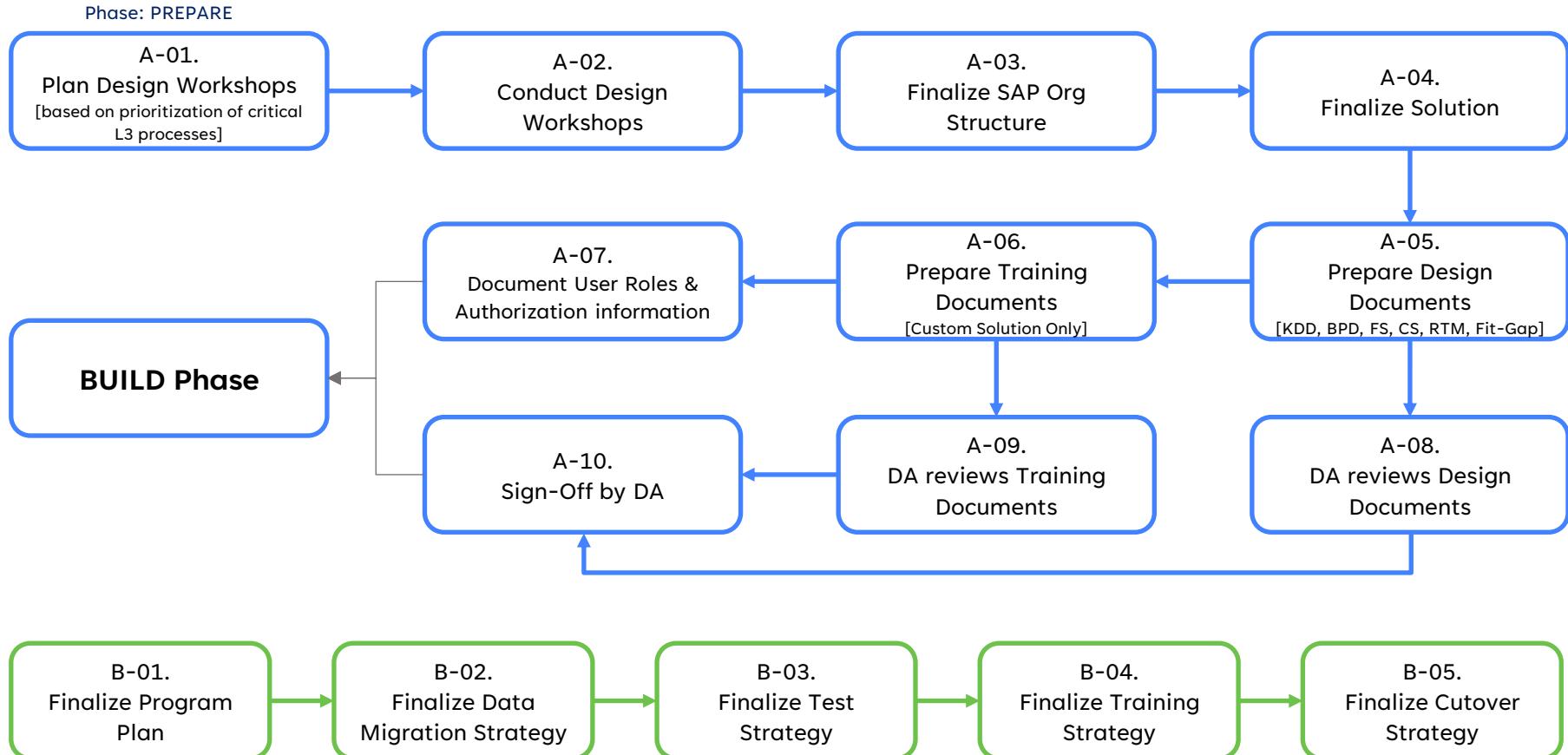
1. Design Workshop Plan to be prepared based on approved list of L4 processes and in discussion with the GPOs / BPOs.
2. Design workshop to focus on identifying & designing the L5 processes.

Scoping, Design & Build

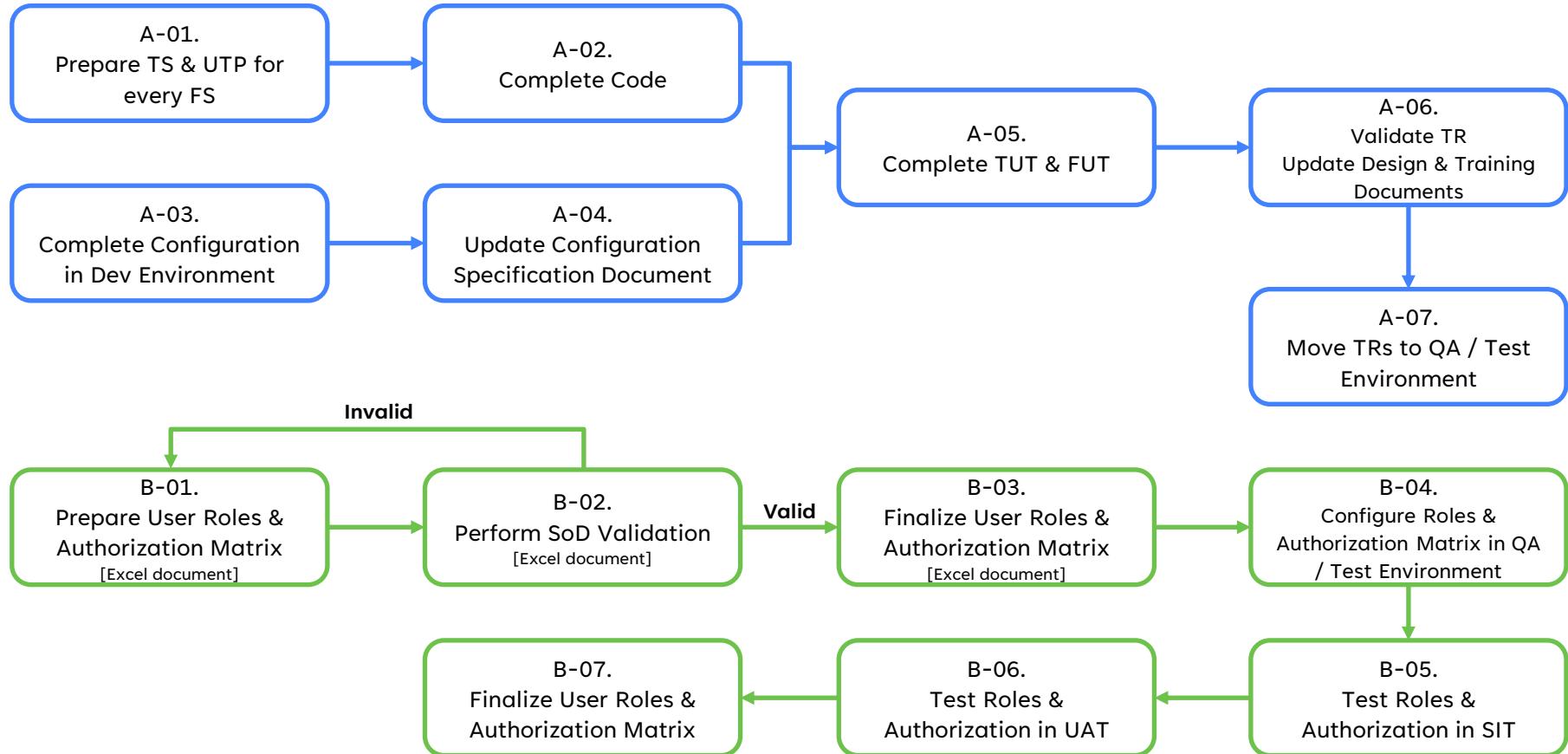
Scoping



Design

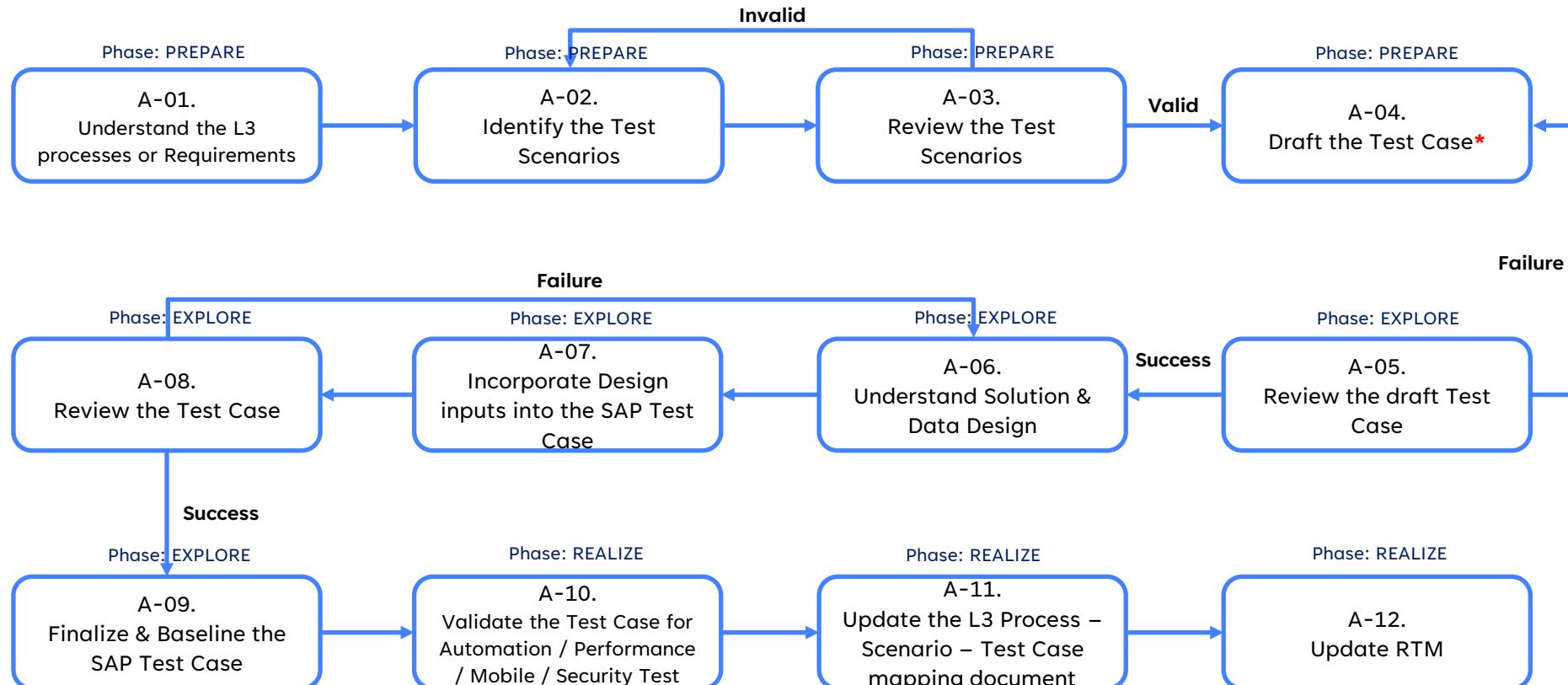


Build



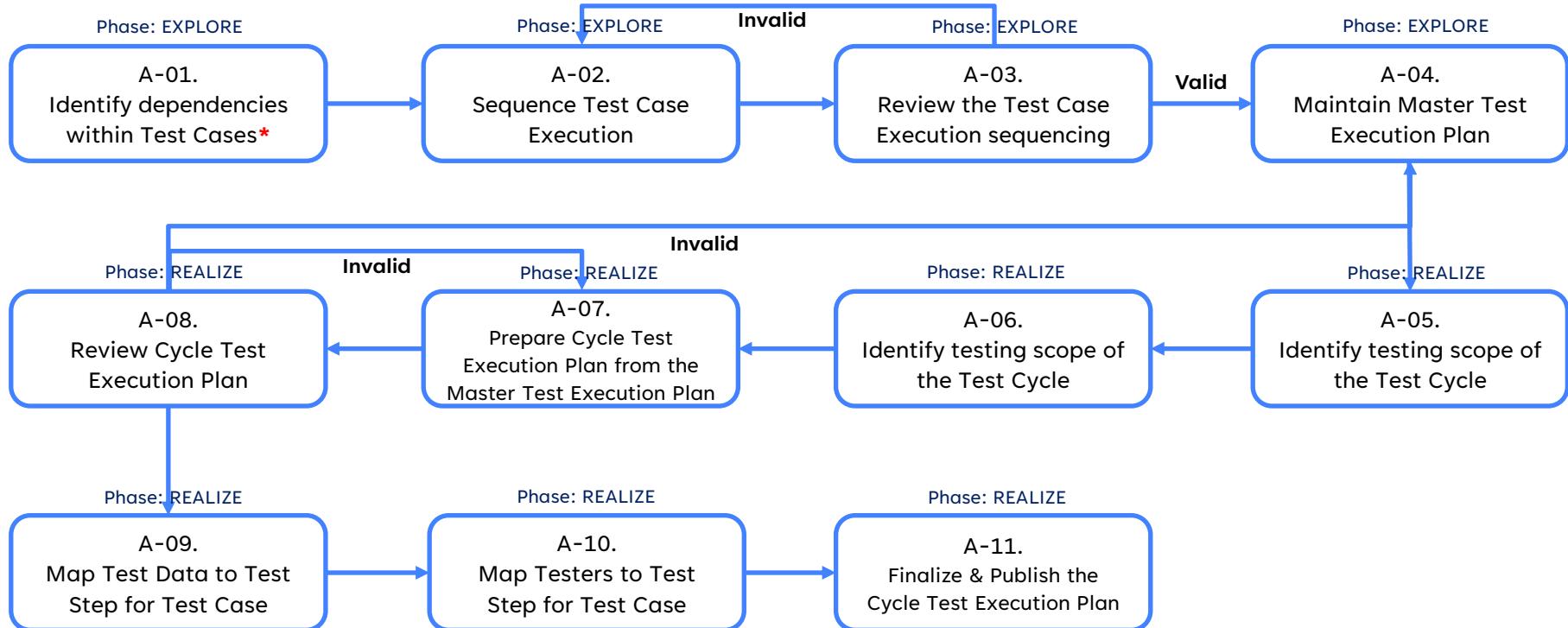
Testing & Defect Management

Test Case Preparation



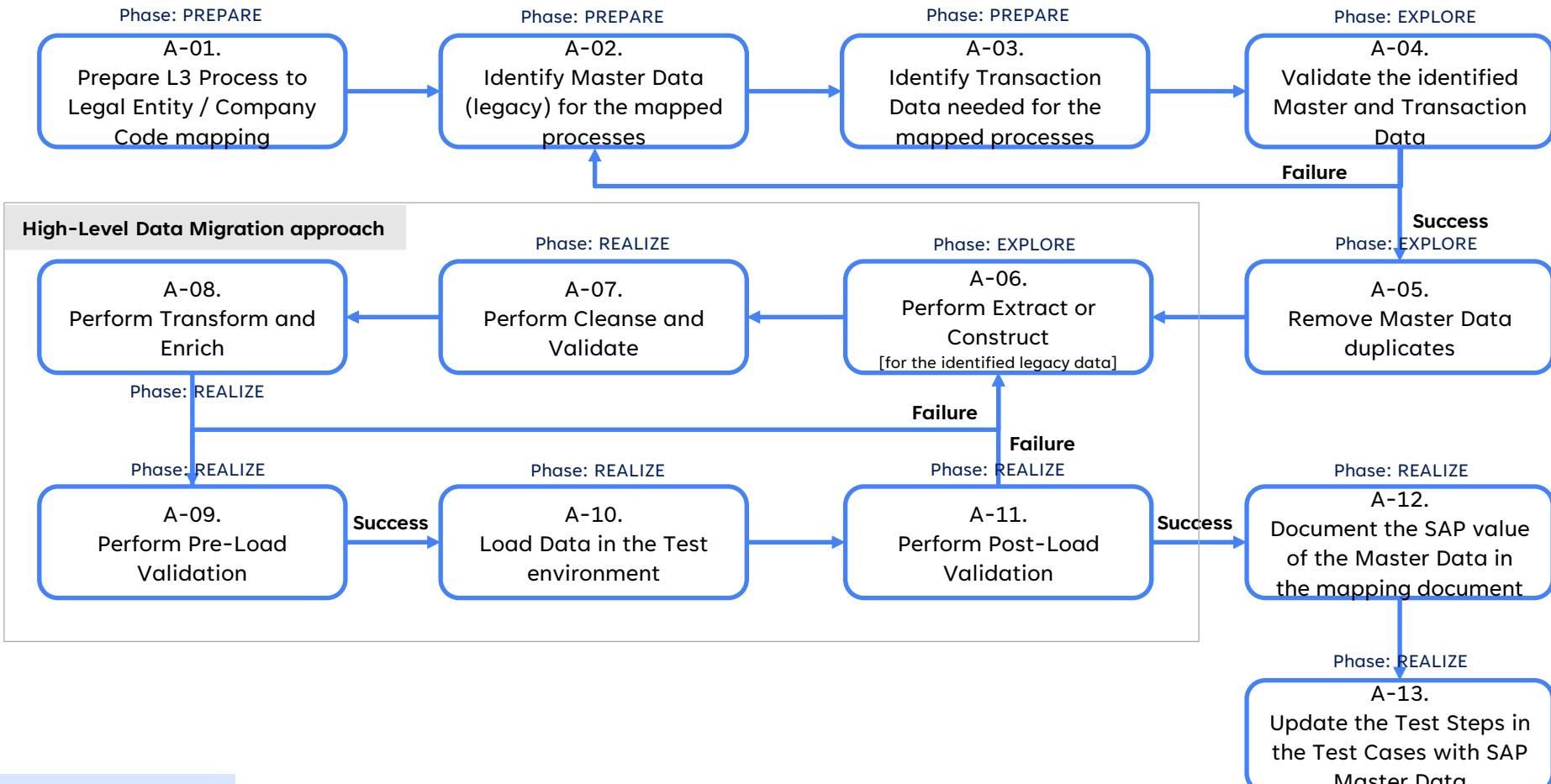
* Maximum number of steps recommended in a Test Case is 40

Test Execution Planning

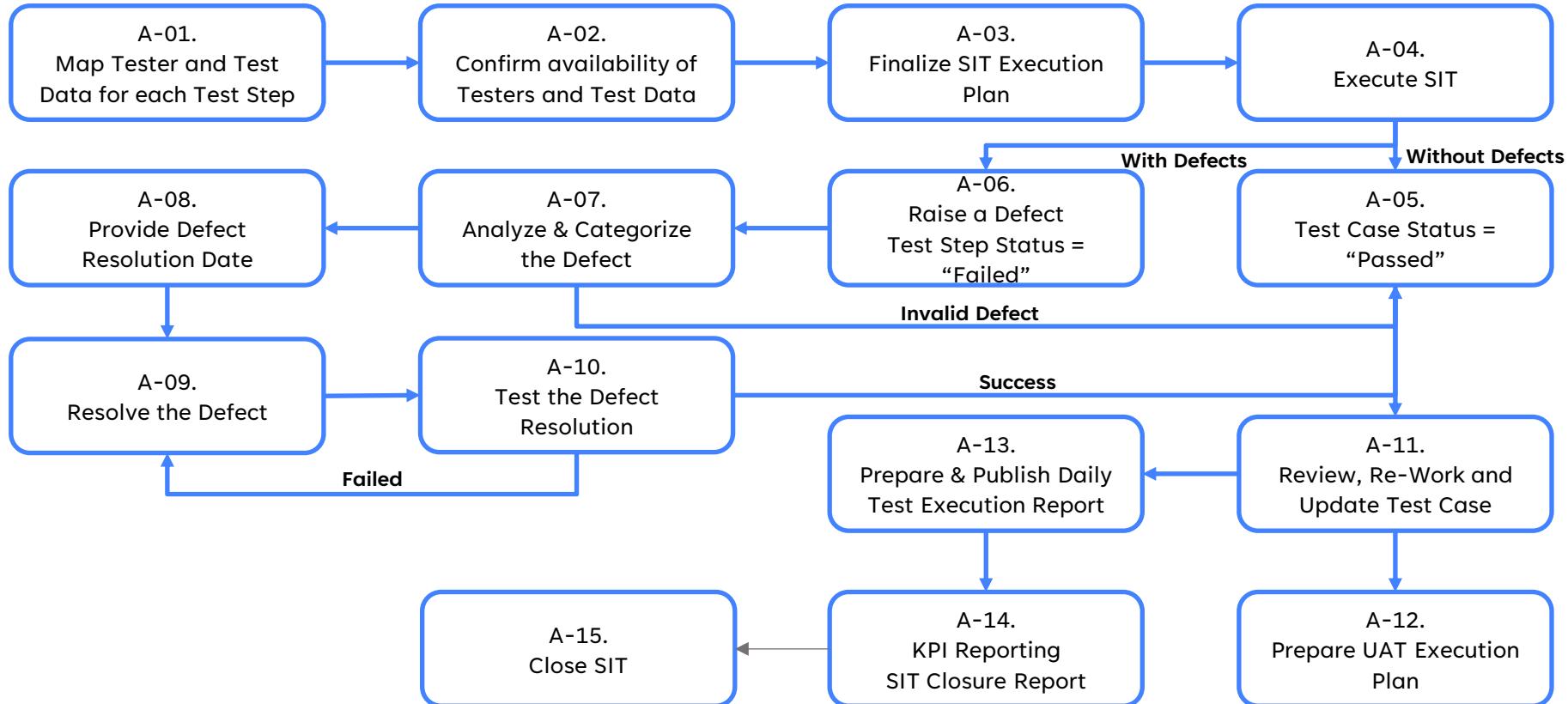


* Test Cases representing 100% scope

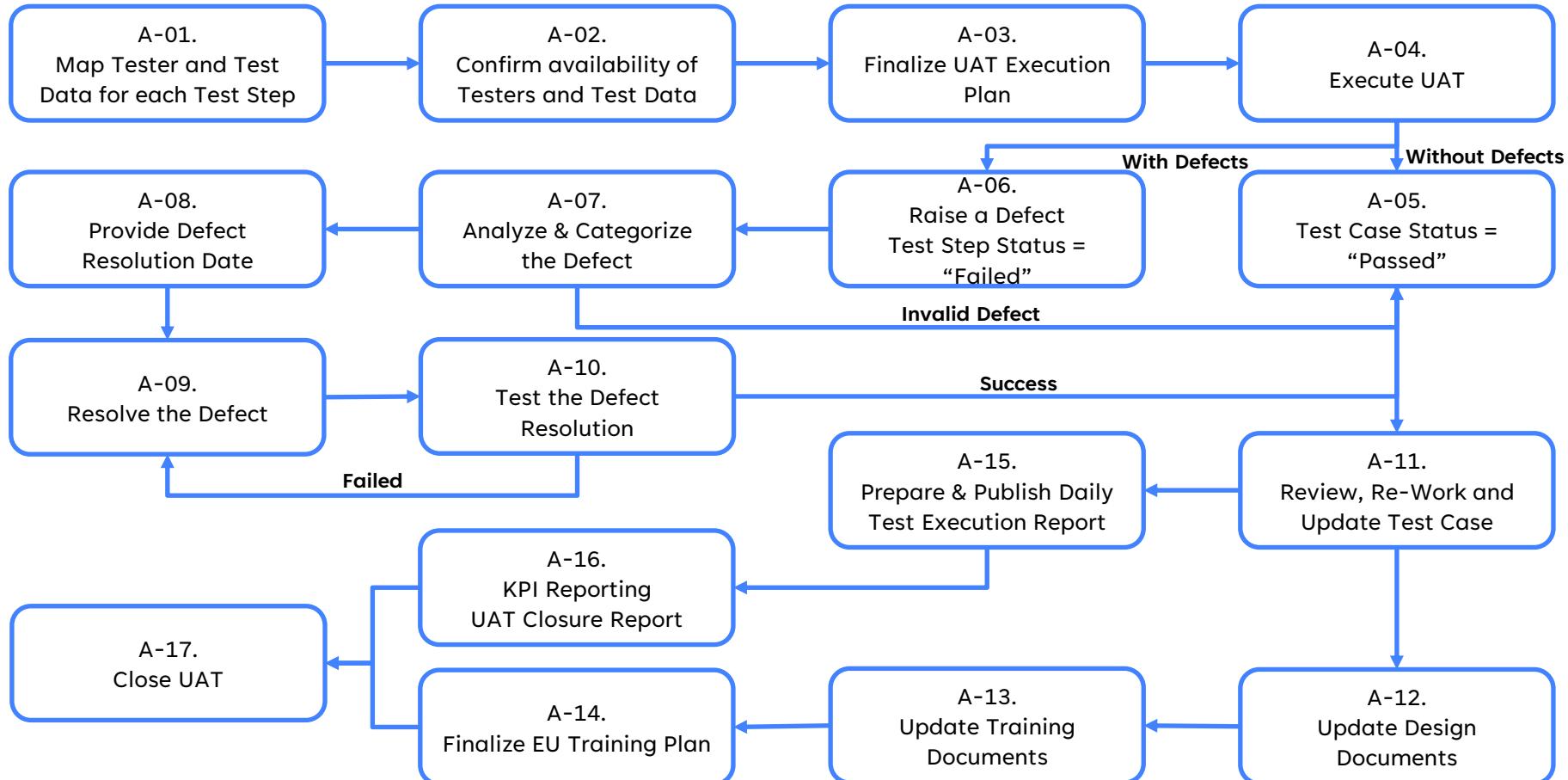
Test Data Identification



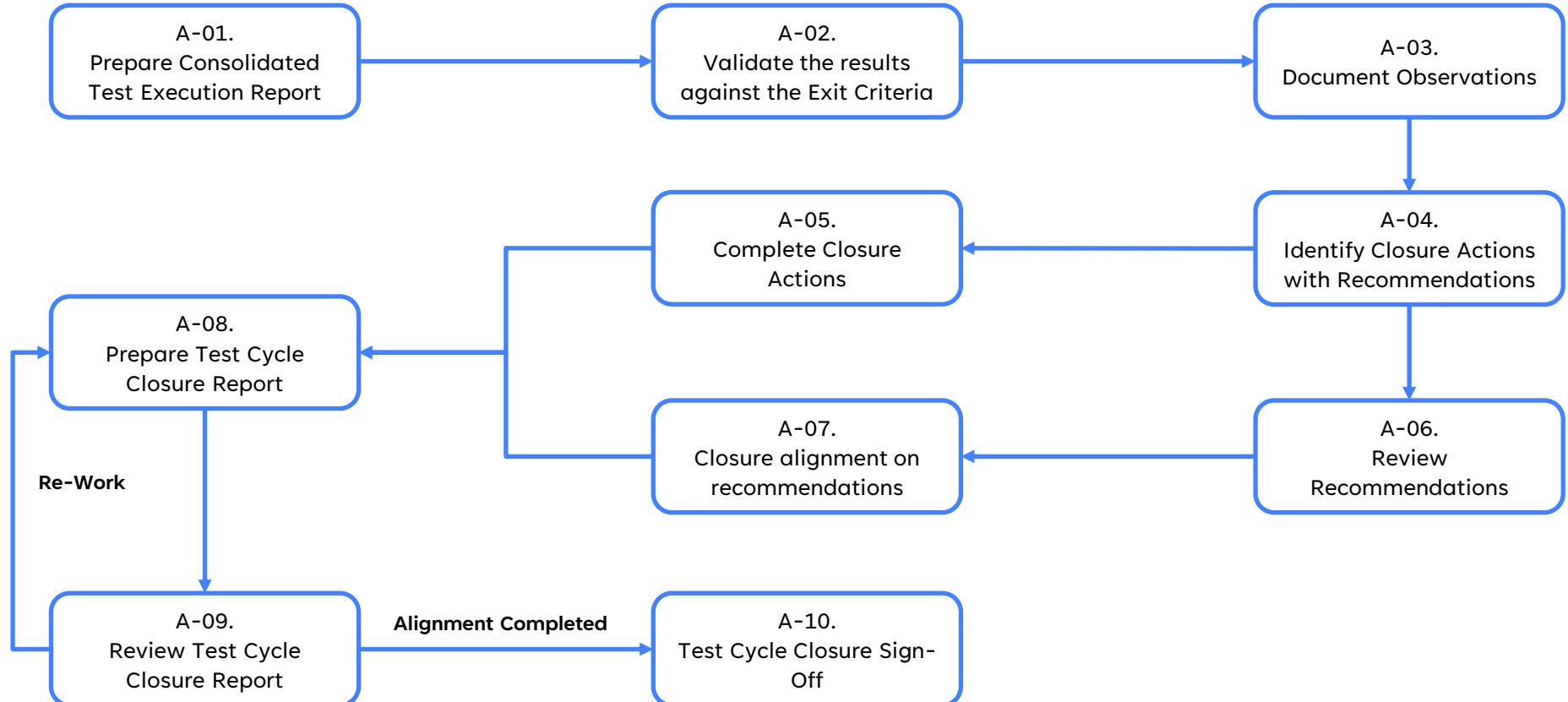
System Integration Testing (SIT)



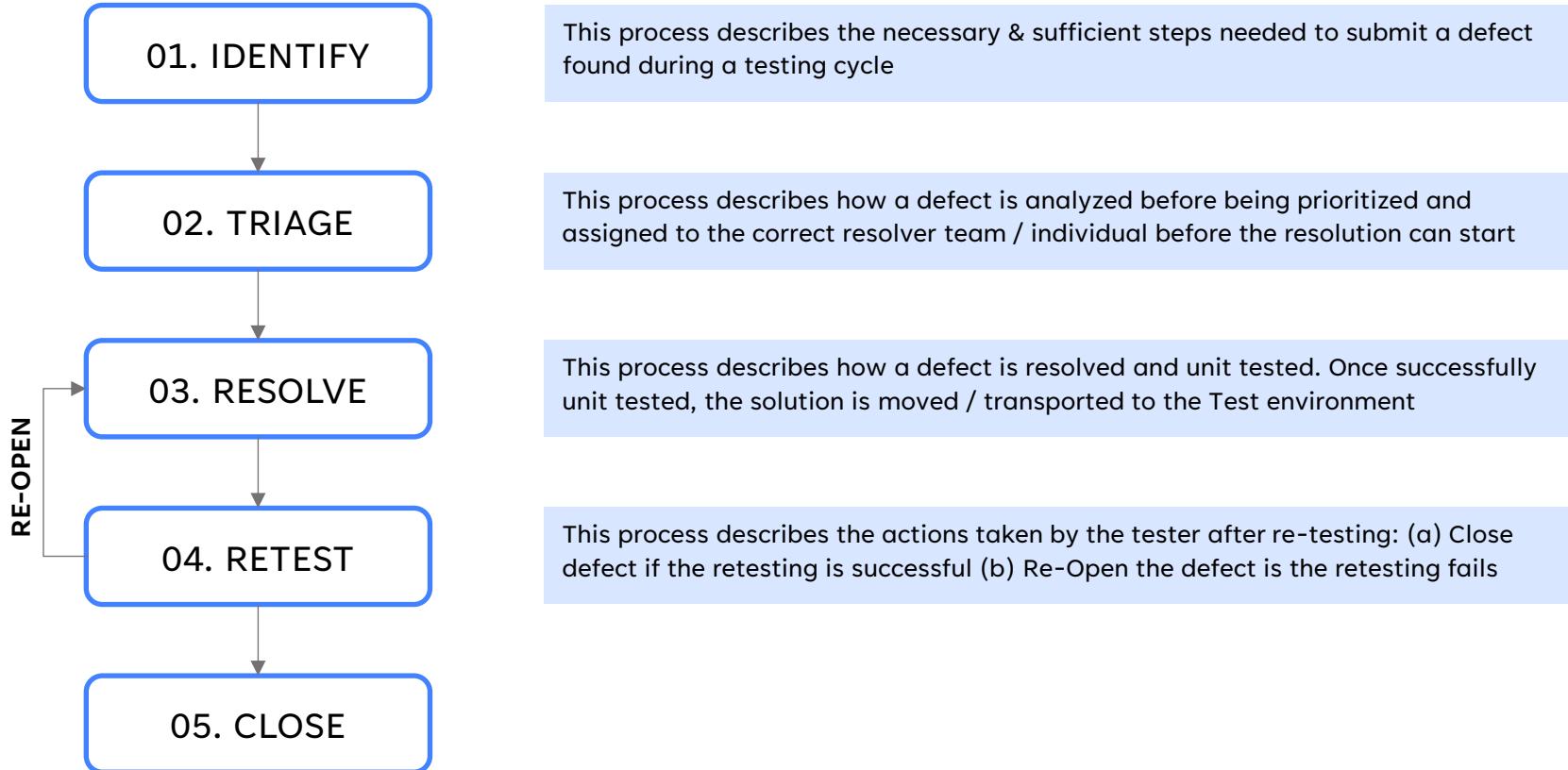
User Acceptance Testing (UAT)



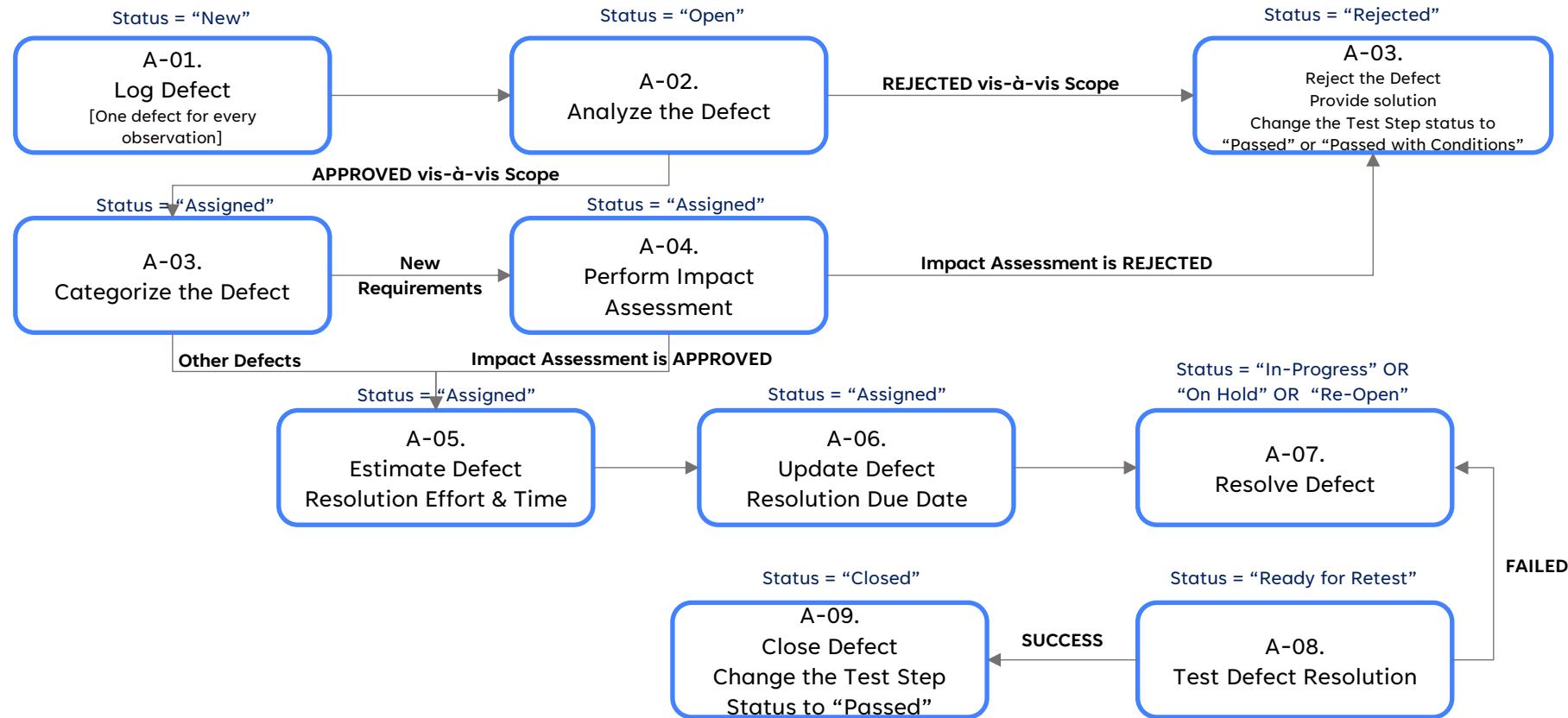
Test Cycle Closure



High-Level Defect Management



Defect Management on a Page



Defect Categories

Srl #	Defect Category	Definition	Actions needed
1	New Requirement	New requirement or a new data request has been raised by the business	Review & decision by the Core Design Authority followed by next actions
2	Design	The solution design is not supporting the approved requirement	Solution team to fix the bug
3	Configuration	The configuration is not aligned with the solution design	Solution team to fix the bug
4	Coding	The custom build is not aligned with the solution design	Solution team to fix the bug
5	Data	Missing or inaccurate data has been identified	Solution or Data team to fix the bug
6	Authorization	The user doesn't have the necessary & sufficient authorizations aligned with the approved User Roles & Authorization Matrix	Solution team to fix the bug
7	Integration	The integration with legacy / 3 rd Party application is not working as expected	Solution team to fix the bug
8	Product	The standard SAP solution is not giving the expected result(s)	Solution Team to work with SAP
9	Infra / Env	An issue identified with the Environment or Infrastructure	Solution or Infra team to fix the issue
10	User Query / Training	The User has an understanding gap or an understanding need	Solution or Data Team to give the clarification

Defect Statuses

Srl #	Defect Status	Definition	Predecessor AND Successor
1	New	A new defect has been raised in the tool	Predecessor – N/A Successor – Open
2	Open / Triage	The defect has been accepted for Triage	Predecessor – New Successor – Assigned OR Rejected
3	Assigned	The defect has been assigned to the resolver team and individual	Predecessor – Open / Triage Successor – In Progress OR On Hold OR Rejected
4	In Progress	The resolver team and the individual assigned is working on the resolution of the defect	Predecessor – Assigned Successor – Ready for Retest OR On Hold OR Rejected
5	On Hold	The defect is waiting for some pending information or issue to be addressed	Predecessor – Assigned OR In Progress OR Re-Open Successor – Assigned OR In Progress or Ready for Retest OR Rejected
6	Ready for Retest	The resolution has been completed and successfully unit tested. It is ready for retest by the tester.	Predecessor – In Progress OR On Hold Successor – Re-Open OR Closed
7	Re-Open	The resolution doesn't meet the requirements and needs to be re-worked	Predecessor – Ready for Retest Successor – In Progress OR On Hold
8	Closed	The resolution is successfully tested	Predecessor – Ready for Retest Successor – N/A
9	Rejected	The defect is rejected either due to incorrect requirement or a new requirement not being approved by the CDA	Predecessor – Any Status Successor – N/A
10	Withdrawn / Cancelled	The defect is withdrawn or cancelled	Predecessor – Any Status Successor – N/A

Defect Severity & Priority

Severity	Impact
1 – Critical	5 or more business critical Test Cases has been adversely impacted with executions stopped
2 – High	2 – 4 business critical Test Cases has been adversely impacted with executions stopped
3 – Medium	Execution of the Test Case has been stopped
4 – Low	Some of the steps of the impacted Test Case can be executed as the defect is resolved

Priority	Impact
1 – Critical	Business critical functions are impacted. Go-Live is impacted
2 – High	Major business functions across process areas are impacted. Go-Live may be impacted without workable workarounds
3 – Medium	Major business functions within a process area are impacted. Go-Live may be impacted without workable workarounds
4 – Low	No impact to Go-Live

GO-LIVE RISK ASSESSMENT MATRIX

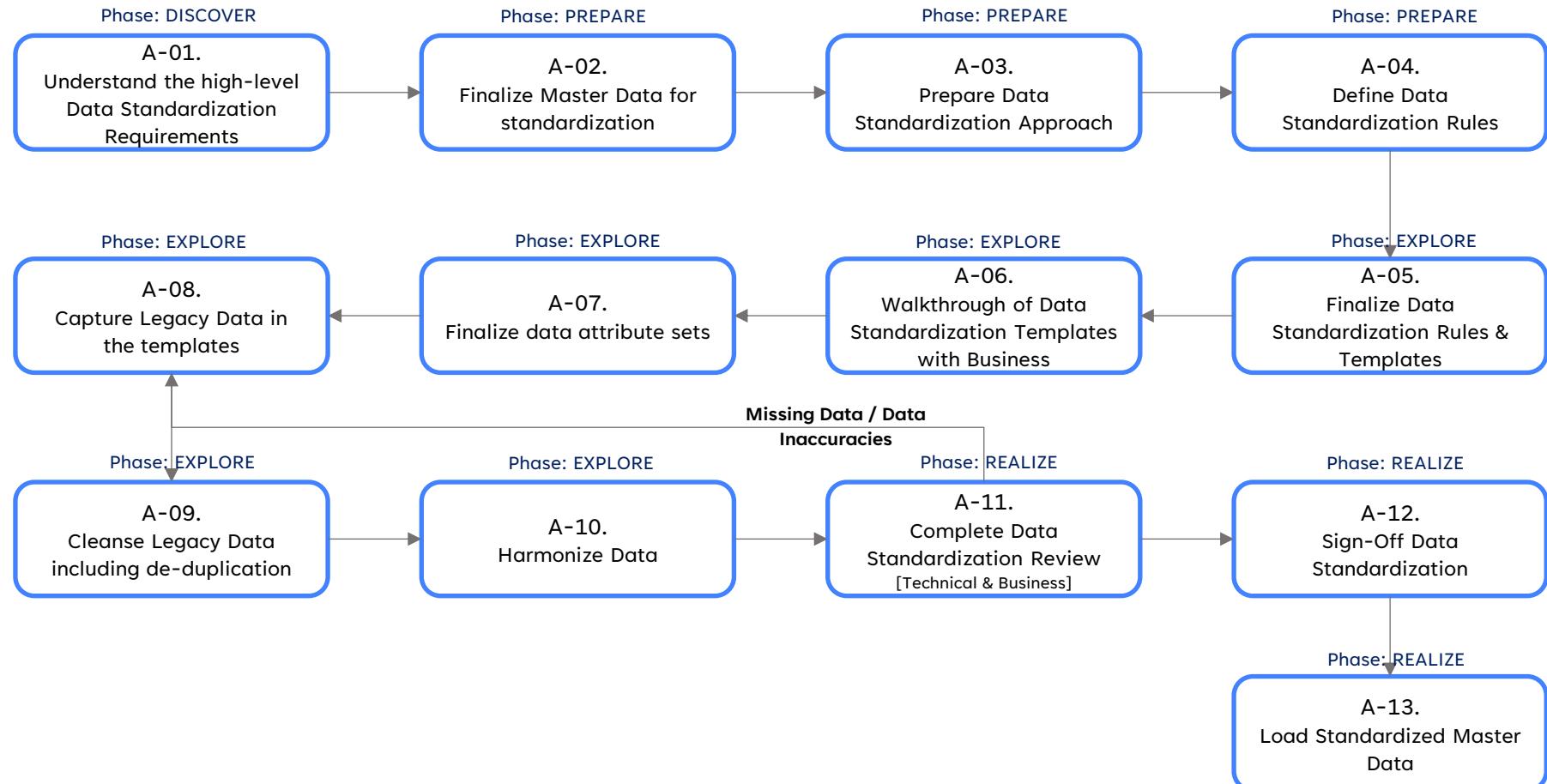
PRIORITY

SEVERITY	1 – Critical	2 – High	3 – Medium	4 – Low	
	1 – Critical	Critical	Critical	High	High
2 – High	Critical	High	High	Medium	
3 – Medium	High	High	Medium	Low	
4 – Low	High	Medium	Low	Low	

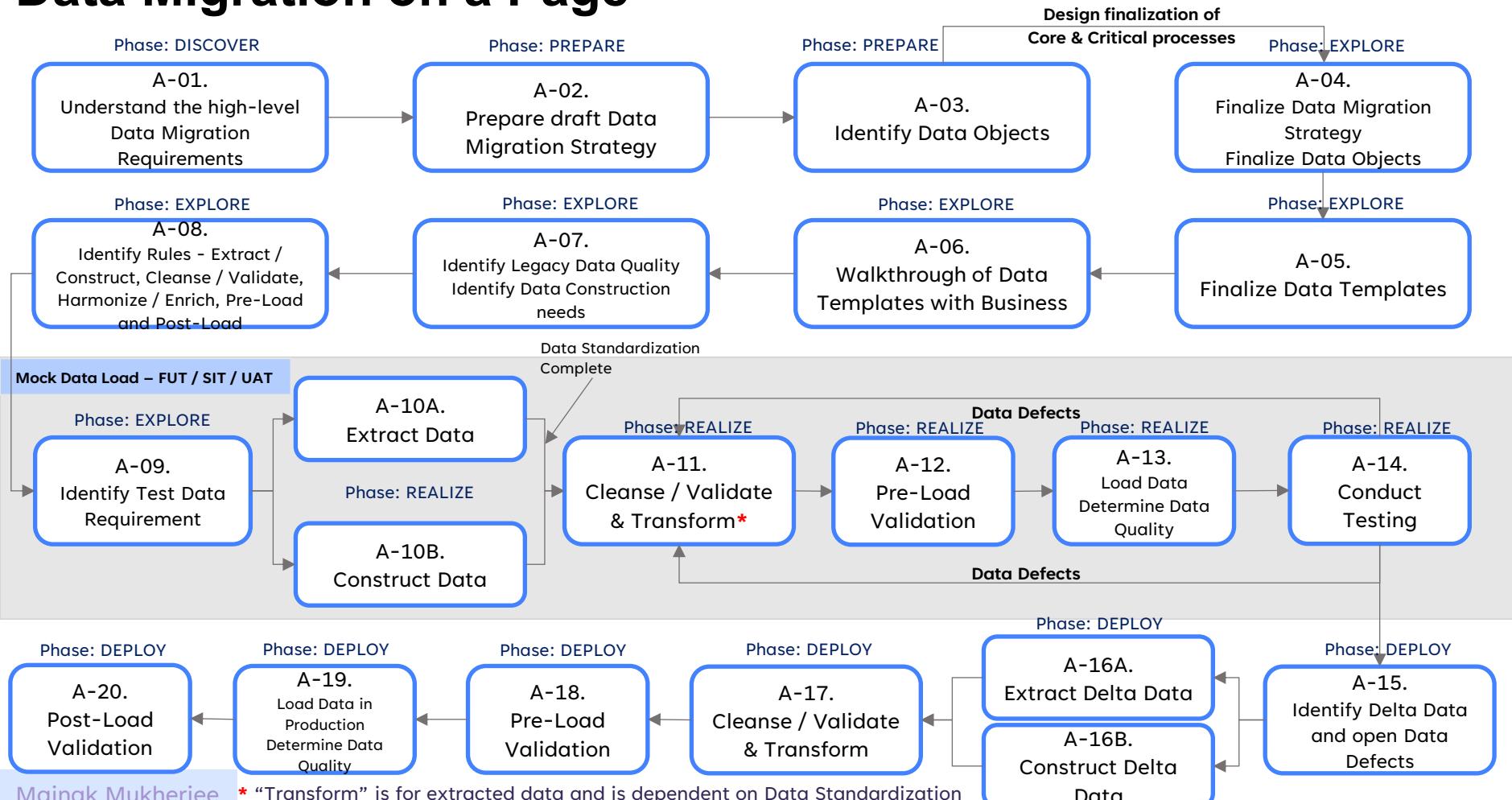
- “Critical” and “High” – Addressed and tested before UAT closure
- “Medium” – Agreed & tested workarounds wherever the defect can’t be resolved within UAT
- “Low” – Good to resolve the defects prior to UAT closure
- Permanent solution for all workarounds and “Low” defects to be closed within Hypercare

Data Standardization & Migration

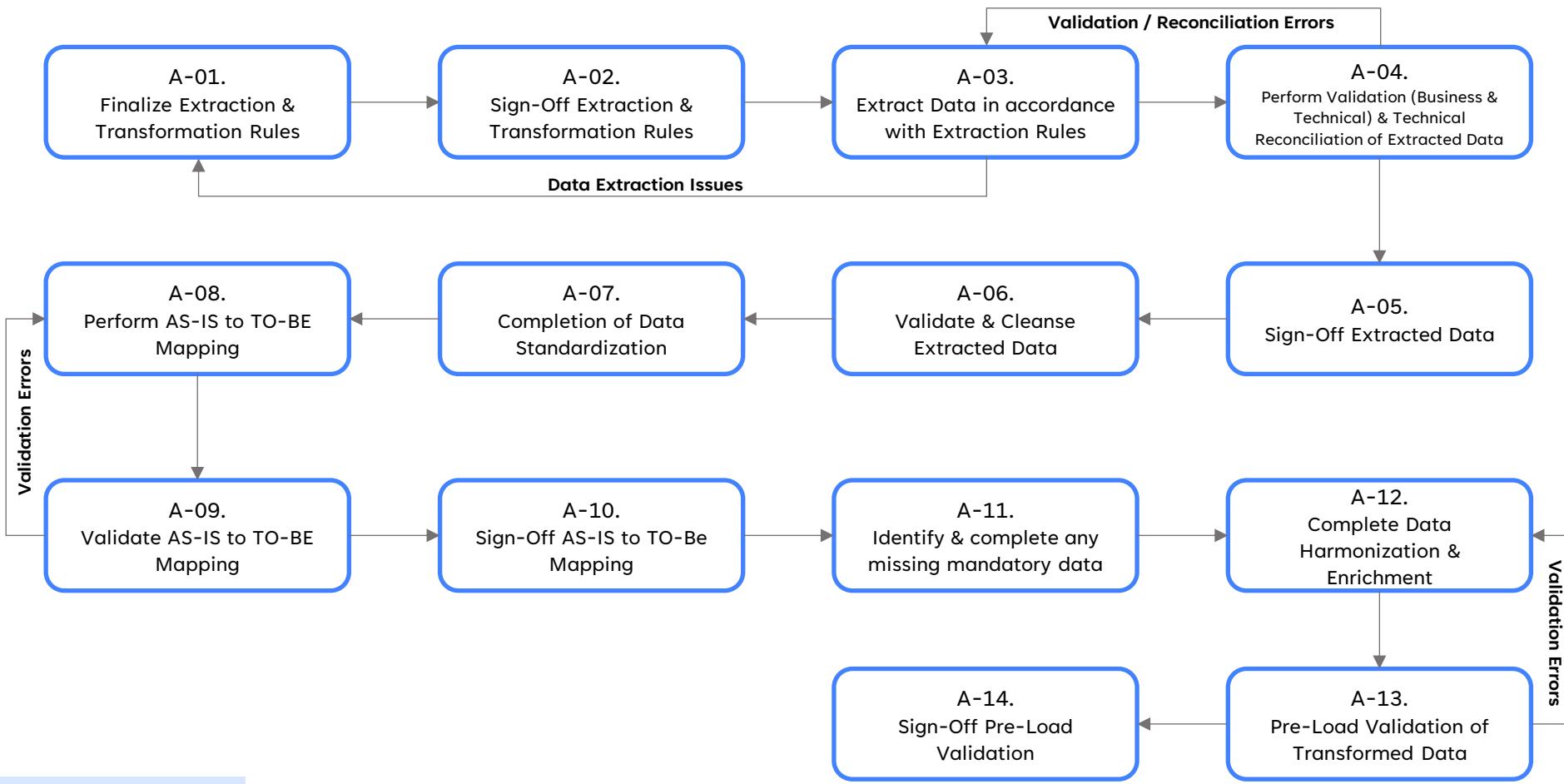
Data Standardization on a Page



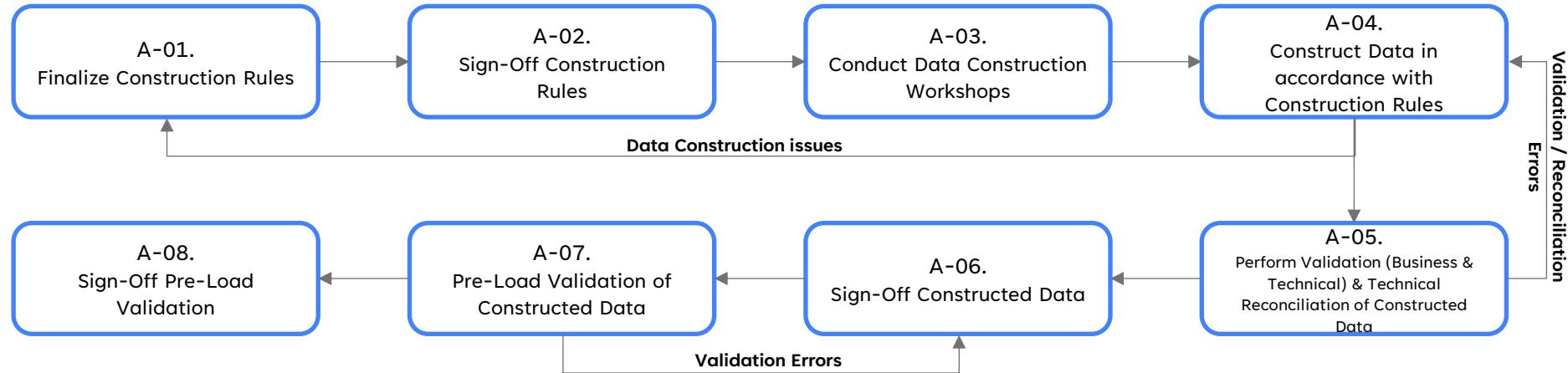
Data Migration on a Page



Data Extraction & Transformation on a Page



Data Construction on a Page



Data Quality Framework

A Data Quality Framework is a roadmap to build data quality management strategy. It provides a structured methodology for assessing, monitoring, and improving the quality of data within the organization. This framework encompasses a set of principles, standards, processes, and tools aimed at addressing various aspects of data quality, including accuracy, completeness, consistency, timeliness, and reliability.

6 Components of Data Quality Framework

Continuous Monitoring & Improvement



Continuously detect deviations from established quality standards and take proactive measures to address them.

6

Data Profiling



Understand data characteristics, structure, and integrity. Includes identifying missing values, outliers, duplicates & inconsistencies

1

Data Governance



The policies, processes, and controls for managing data assets effectively. Establishes clear R&R to ensure accountability & compliance with regulatory requirements

5



Data Quality Framework

2

Data Quality Dimensions



5 dimensions - Accuracy, Completeness, Consistency, Timeliness, and Relevance. Define specific metrics & thresholds for each dimension.

Data Quality Rules & Standards

Define & establish data quality rules to maintain consistency & integrity across datasets. These rules define data values, formats, and relationships.

4

Data Cleansing

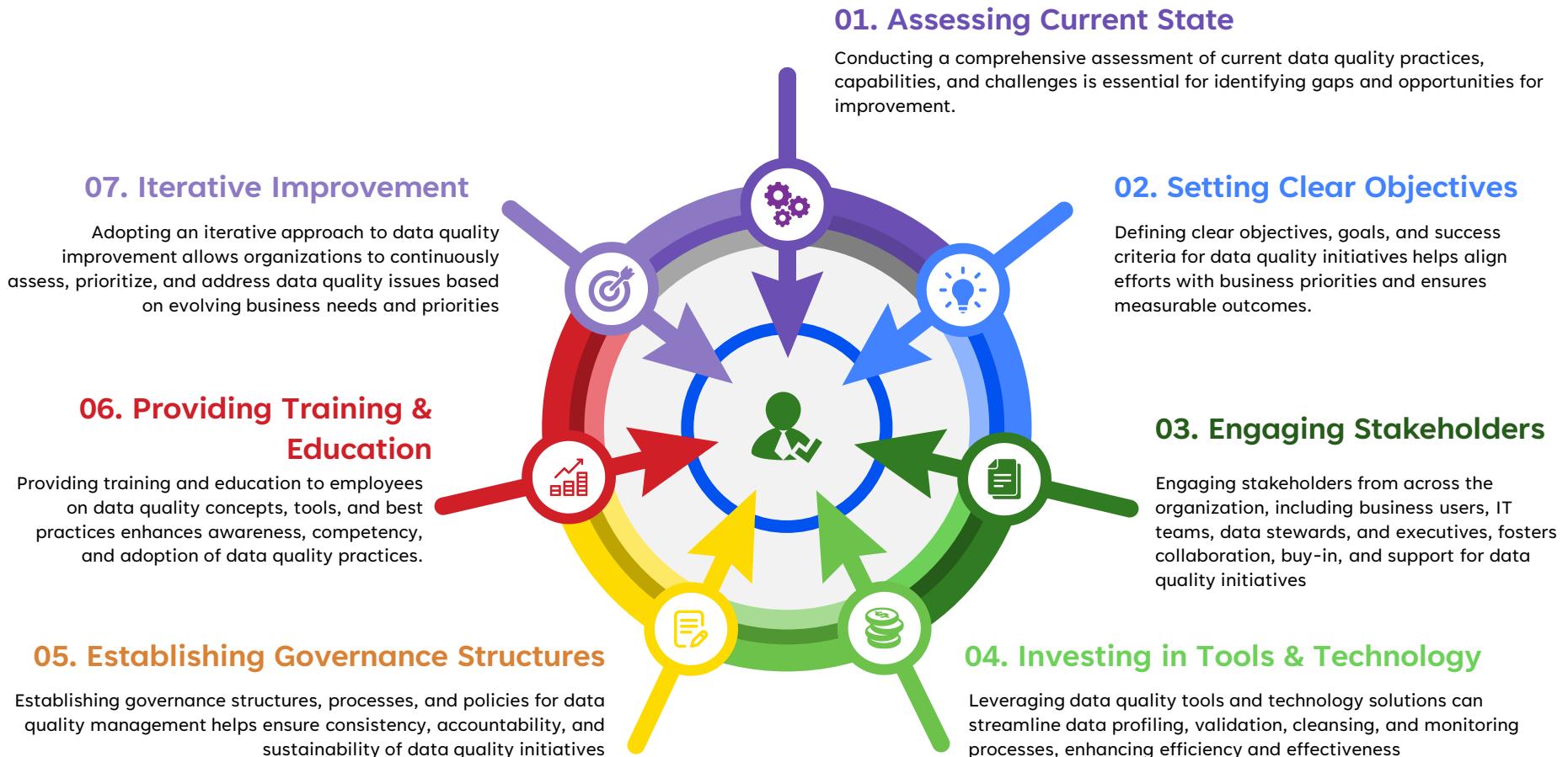
Corrective actions to address data quality issues by cleansing & enriching data. Includes removing duplicates, standardizing formats, correcting errors, and augmenting missing information.



3

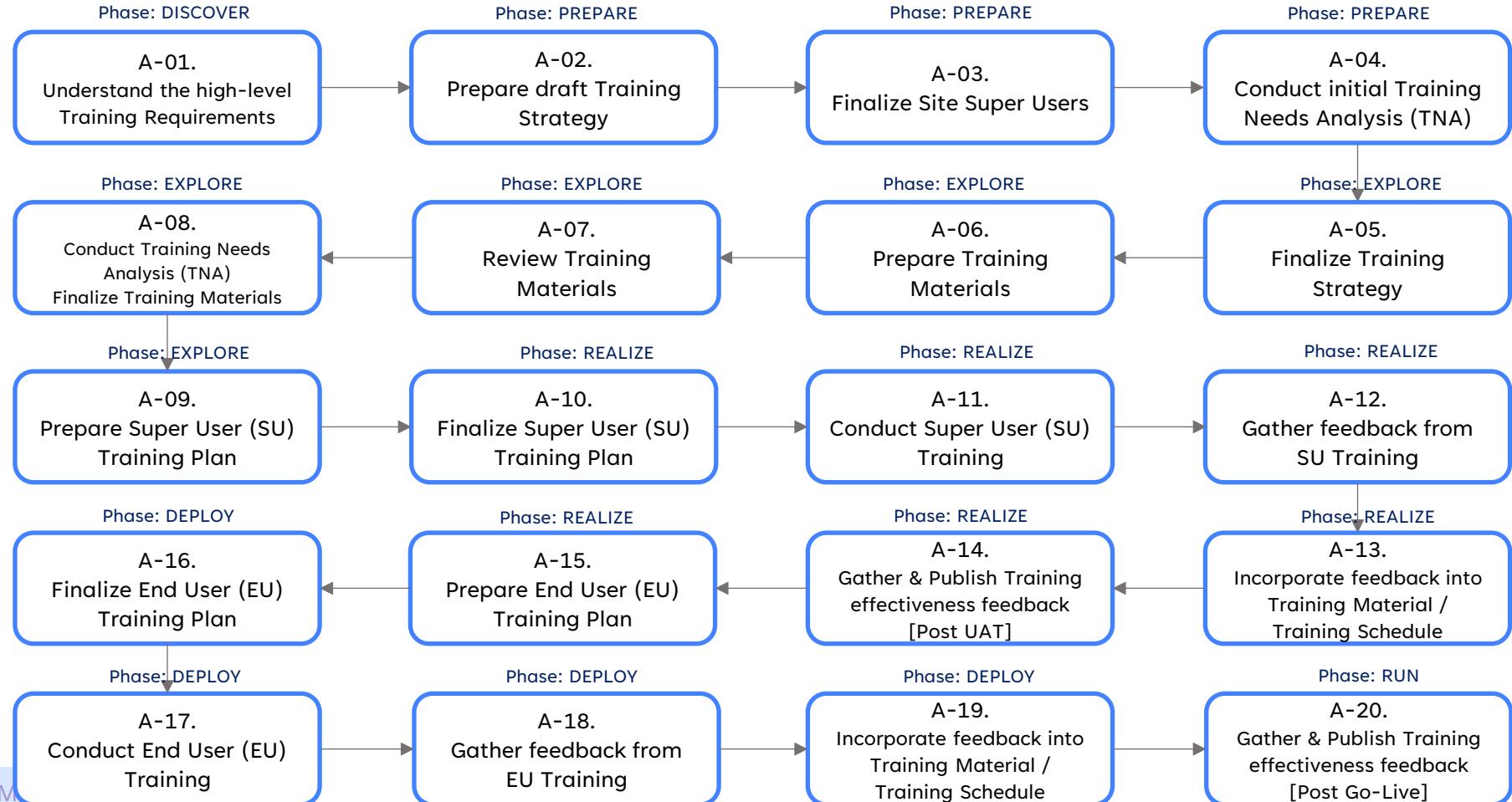
All activities are in the REALIZE Phase

Implementing Data Quality Framework



Training

Training on a Page



Cutover

Cutover

Cutover is defined as the phase in an Implementation program where the AS-IS system is closed (no further transactions to be made excluding generation of reports for Tax & Audit purposes) and the business starts conducting their transactions in the TO-BE system.

Key Activities:

1. Execution of Business Cutover Tasks
2. Transaction Data Freeze [applicable for transactions with inventory & financial impact which can't be completed before month-end in the legacy system]
3. Manual or automated data capture in Blackout Templates
4. Product Costing Validation & Correction
5. Blackout Period [when no system is available to capture master & transaction data]
6. Inventory Quantity Finalization
7. Inventory Price Validation & Correction
8. Inventory Load
9. Inventory Sign-Off
10. Transaction Data Load
11. Month-End Closing in Legacy
12. Go-Live in the new system
13. Post Go-Live Catchup [Blackout period transactions and transactions post Go-Live till backlog is cleared]
14. Material Ledge Closing and MR22 Run
15. Completion of Financial Transaction Data Load

What happens during Blackout:

1. All transactions in legacy system(s) stop, except month-end closure activities. [Month-End activities in legacy to be performed by considering the last date of the month as the month-end close date]
2. All transactions, with inventory and/or financial impact, to be recorded in the Blackout Templates
3. No parallel run between the legacy (AS-IS) and the new (TO-BE) systems
4. Once the last month-end in legacy is completed and data (master and open transactions) is migrated to the new system, the legacy system will be display / query mode only

Key Cutover Guidelines – Procurement

Before Blackout Start / Transaction Data Freeze		Day 1 of Go-Live and after	After Finance Balances Load
STOP OR EXPEDITE	SLOW DOWN	START	START
<ul style="list-style-type: none">▪ Close all POs for which no receipts are expected in future▪ If delivery for open POs are expected during the Blackout period, inform the vendors to expedite delivery before start of Blackout period▪ Close all PRs in the legacy system or convert them to Pos before PO freeze date	<ul style="list-style-type: none">▪ Slow down PR and PO creation before PO freeze date	<ul style="list-style-type: none">▪ Create PR and PO in the new system with reference to the post Go-Live data templates▪ Start business-as-usual (BAU) activities only after the catch-up is completed	N/A

Key Cutover Guidelines - Sales

Before Blackout Start / Transaction Data Freeze		Day 1 of Go-Live and after	After Finance Balances Load
STOP OR EXPEDITE	SLOW DOWN	START	START
<ul style="list-style-type: none">▪ Expedite creation of SO (as received) in the legacy system before the start of the transaction data freeze▪ Speak to the customers so that they issue future Sales Orders which are entered in the legacy system before transaction data freeze to minimize Blackout catch-up▪ Expedite dispatches in legacy before the start of Go-Live outage▪ Complete creation of all billing documents in the legacy system before the start of Go-Live outage	<ul style="list-style-type: none">▪ Slow down of dispatches before & during Blackout period to minimize catchup▪ Plan for limited stock movement (only for key customers or high-value customers) [Keep customers informed]	<ul style="list-style-type: none">▪ Create SO in the new system with reference to the post Go-Live data templates▪ Start creation of deliveries, PGI and billing documents for dispatches done during the Blackout period▪ Start business-as-usual (BAU) activities only after the catch-up is completed	N/A

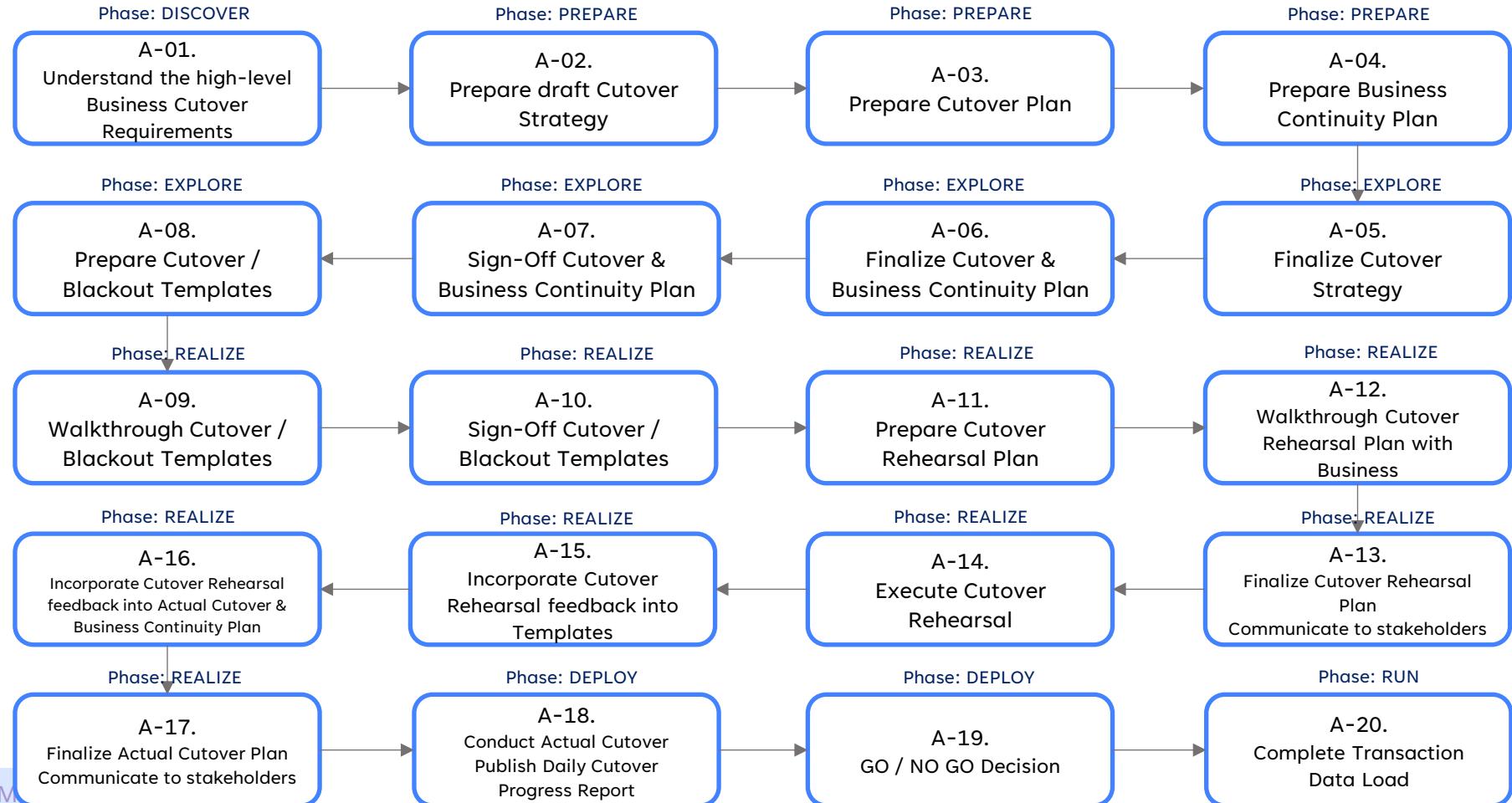
Key Cutover Guidelines - Inventory

Before Blackout Start / Transaction Data Freeze		Day 1 of Go-Live and after	After Finance Balances Load
STOP OR EXPEDITE	SLOW DOWN	START	START
<ul style="list-style-type: none"> ▪ Stop all Material Issues/ Transfers/ Receipts/ Returns in the legacy system before the Blackout period start ▪ All departments to estimate their requirements and requisition the material sufficiently in advance ▪ Expedite completion of stock taking and reconciliation for raw material, finished goods etc. on or before start of inventory freeze date ▪ GRN from Production order to be completed before the start of the Blackout period ▪ All the Quality Inspection stock to be cleared ▪ No stock to be in transit ▪ No inventory movement (GR, GI, Stock transfer, Bill of Lading, Inventory adjustments) to be entered in the legacy system after the inventory freeze start 	<ul style="list-style-type: none"> ▪ Slow down receipts and dispatches before blackout start 	<ul style="list-style-type: none"> ▪ Catchup on goods movement (GR, GI, Stock transfer) in the new system with reference to the post Go-Live data templates ▪ Start business-as-usual (BAU) activities only after the catch-up is completed 	N/A

Key Cutover Guidelines - Finance

Before Blackout Start / Transaction Data Freeze		Day 1 of Go-Live and after	After Finance Balances Load
STOP OR EXPEDITE	SLOW DOWN	START	START
<ul style="list-style-type: none">▪ All vendor invoices for which material is received before Blackout start to be entered in the legacy system▪ Complete booking of all customer invoices in the legacy system before start of the Blackout where material has been dispatched▪ Manual provision for Freights, GRNs where prices are not final and complete creation of invoices▪ Settle Debit / Credit Notes in the legacy▪ Inform vendor of any delay in payment▪ Pay vendors early if it makes business sense	<ul style="list-style-type: none">▪ Minimize payments during blackout period (business decision)▪ Ensure critical payments are made in the legacy before month end close	<ul style="list-style-type: none">▪ Advance payment/ receipts in S/4HANA▪ Make payments to vendors for new material receipts which are done in S/4HANA▪ Start receiving payments from customer for new dispatches which are done in S/4HANA▪ Sites can start posting Journal Entries▪ Start new financial postings for downstream transactions done in S/4HANA	<ul style="list-style-type: none">▪ Making / receiving payments for legacy invoices▪ Changes to existing asset balance, New asset creation and asset postings.

Cutover Process on a Page



Go-Live Readiness Check

Milestone Checkpoints

- The objective of **Milestone Checkpoints (MC)** is to determine the Go-Live readiness and to start the Cutover Activities tied to each milestone i.e.
 - **MC 1** covers activities until start of data loads
 - **MC 2** covers activities from start of data load till Blackout start
 - **MC 3** covers activities from during blackout period
 - **MC 4** covers activities around turning on interfaces etc. ~12 hours before Go Live
 - **MC 5** covers activities of releasing users in new system
- **Milestone checkpoints are critical to**
 - Check progress on readiness checklist
 - Get leadership approval to move to continue with Cutover activities

9 MCs to check Go-Live Readiness

