

Reference Data Management (RDM) for SAP MDG

Why companies need it and how they use it

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MS 15

WHY
companies need it

What is reference data?

Definition

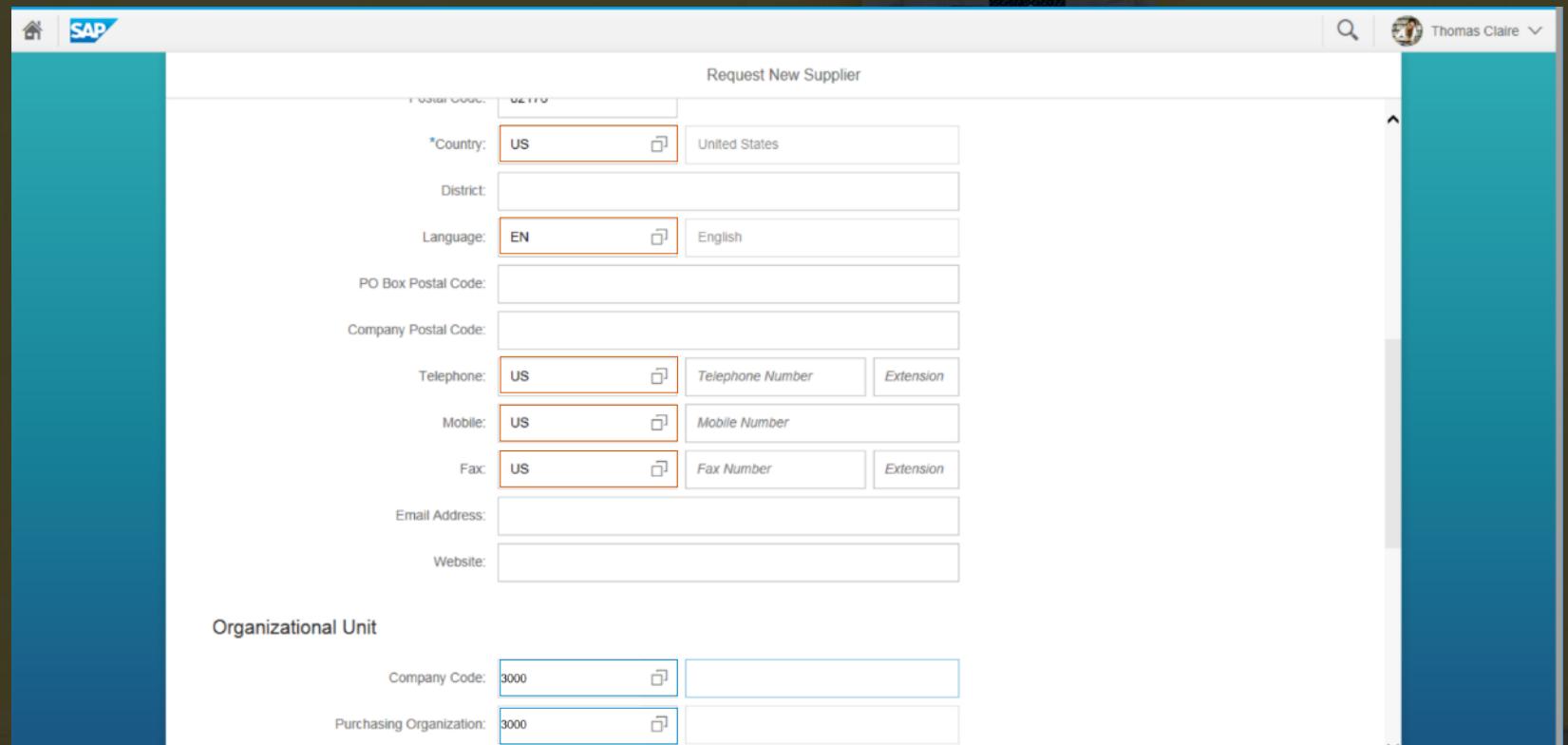
Reference data are data that define the set of permissible values to be used by other data fields (source Wikipedia)

EXTERNAL REFERENCE DATA

Defined by standards organizations, such as country code defined in ISO 3166-1

INTERNAL REFERENCE DATA

Organization specific reference data, often related to a structure (reporting, legal, accounting, etc.) within the organization



The screenshot shows a SAP application interface with a teal sidebar on the left and a dark background. The main area is titled 'Request New Supplier'. It contains the following fields:

- Postal Code: 02170
- *Country: US (United States)
- District: (empty)
- Language: EN (English)
- PO Box Postal Code: (empty)
- Company Postal Code: (empty)
- Telephone: US (Telephone Number, Extension)
- Mobile: US (Mobile Number)
- Fax: US (Fax Number, Extension)
- Email Address: (empty)
- Website: (empty)

Below this, there is a section titled 'Organizational Unit' with the following fields:

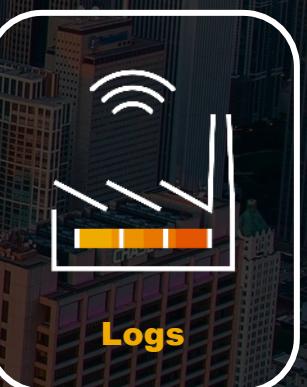
- Company Code: 3000
- Purchasing Organization: 3000

Itego Reference Data Management

What and Why? Data with High Impact

Low Frequency of change
but high impact!

FREQUENCY OF CHANGE



Examples

Country Code, Material Group, Payment Terms, Product Hierarchy, Plant

DEGREE OF SHARING

Source: SAP

Itego RDM – Customer Feedback

Challenges with Reference Data based on

- Complex organizations and system landscapes
- Insufficient working solutions (SAP or non-SAP)
- Data Replication and Interface Complexity

Collected from these industries

• Automotive	• Retail	• Pharma
• High Tech	• Utilities	• Chemicals
• Manufacturing	• Oil, Gas and Energy	• Telecommunications
• Engineering	• Food and Beverages	• Aerospace and Defense



Itego RDM – Customer Feedback

This solution is ...

- Complete: Harmonization and Governance
- Powerful: Data Model, UI, Workflow and Replication
- Solid: out of the box standard, not a toolbox

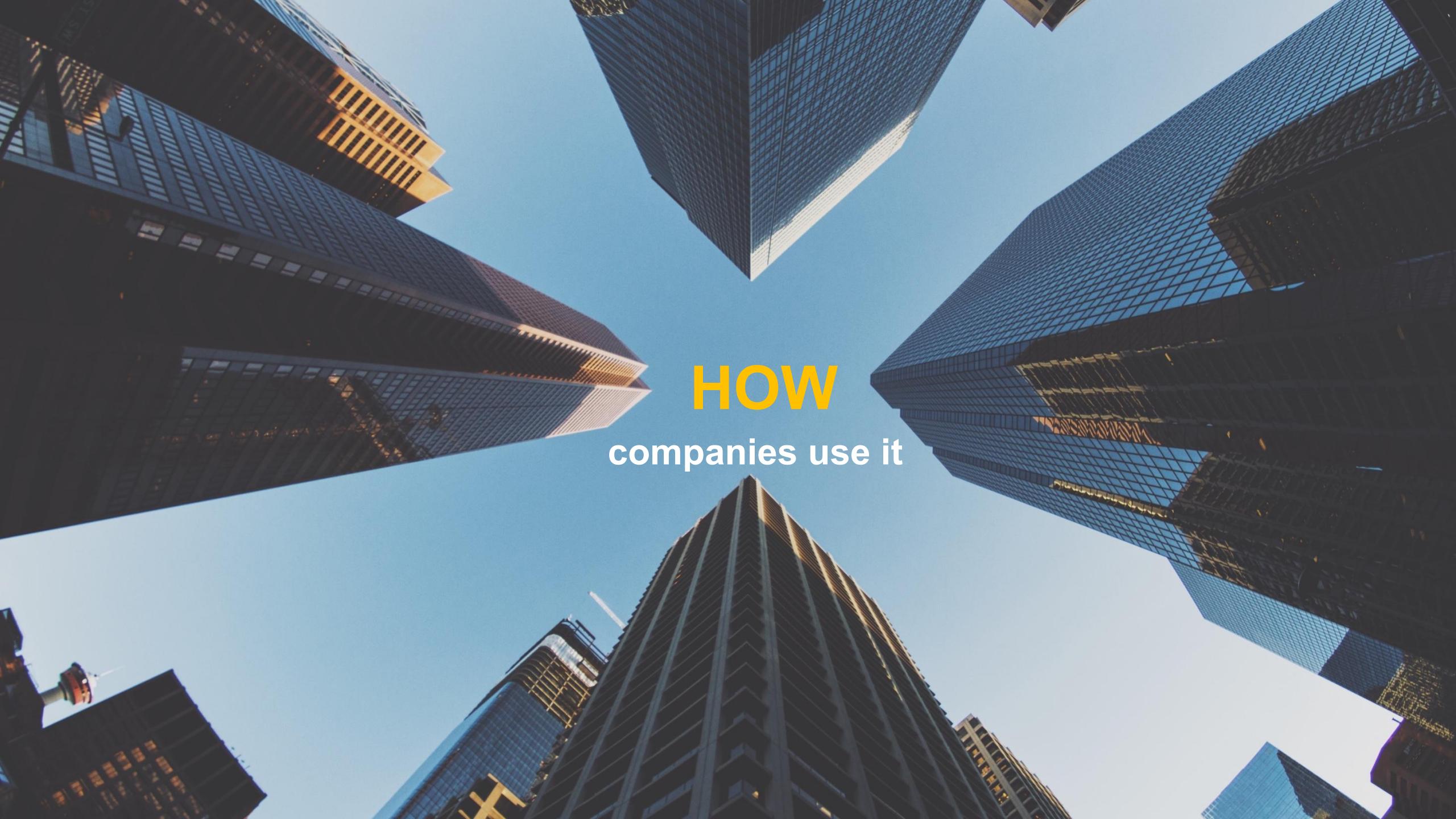
Features

- Consolidation, synchronization and flexible data replication
- Fast, simplified, and harmonized governance process

Benefits

- Reduced business risks
- Reduced project costs and duration
- Reliable but flexible business processes
- Strategic planning based on reliable reporting





HOW
companies use it

Itego Reference Data Management for SAP MDG

Deliver Data and Process Quality step by step aligned with your MDG Roadmap



Quick Fixes / Reporting



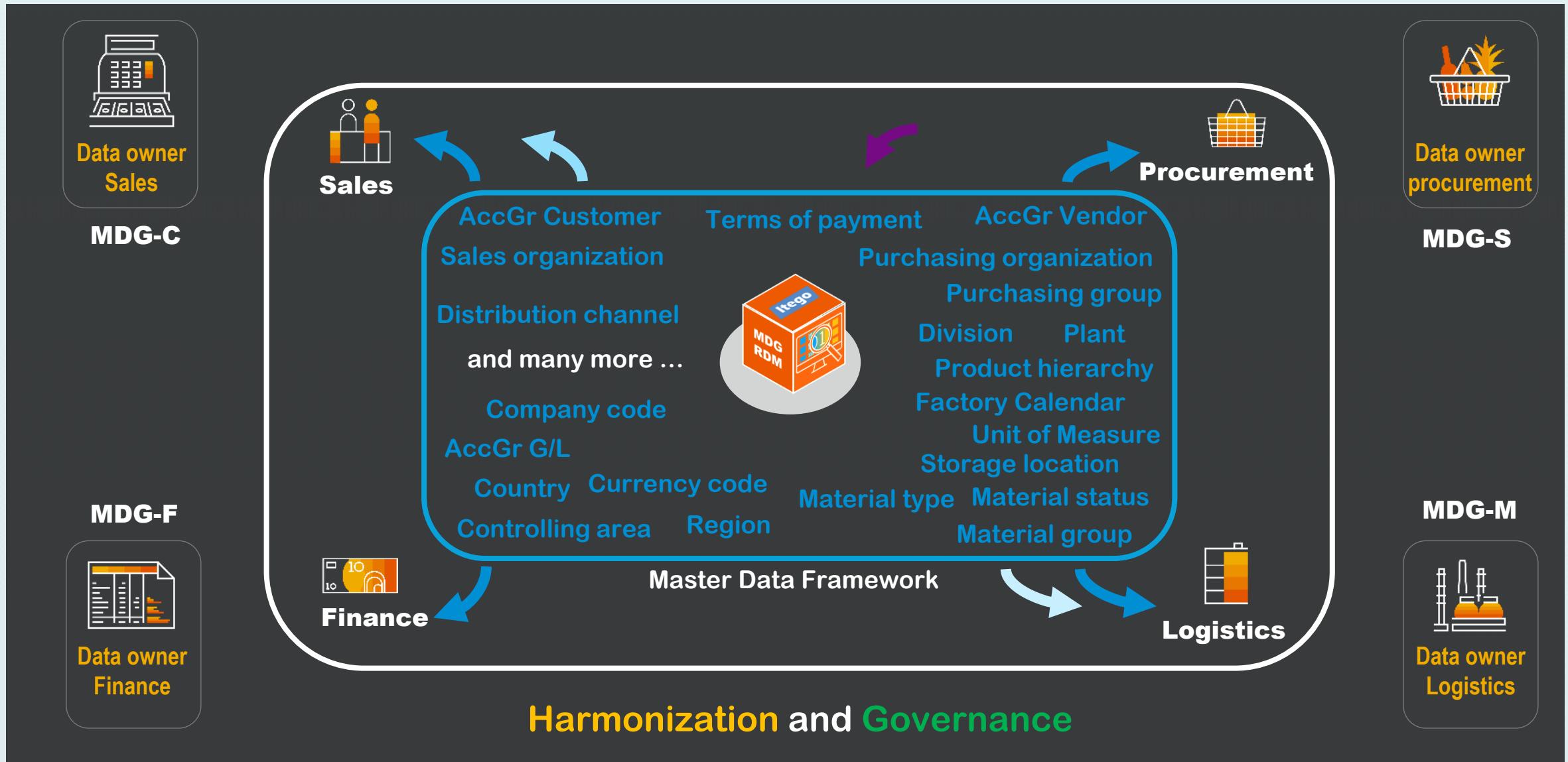
Harmonization



Governance

Itego Reference Data Management

Creating and keeping the Single Source of Truth

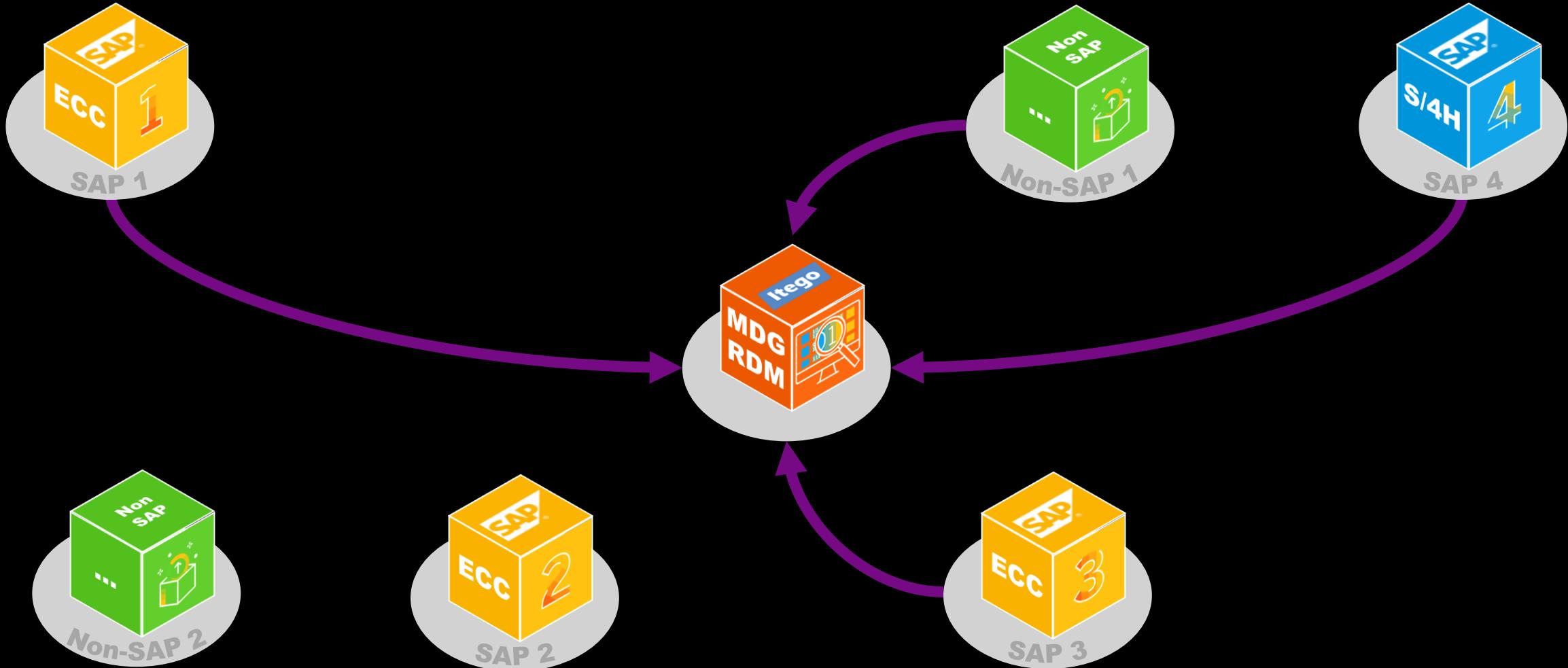




HOW RDM Harmonization

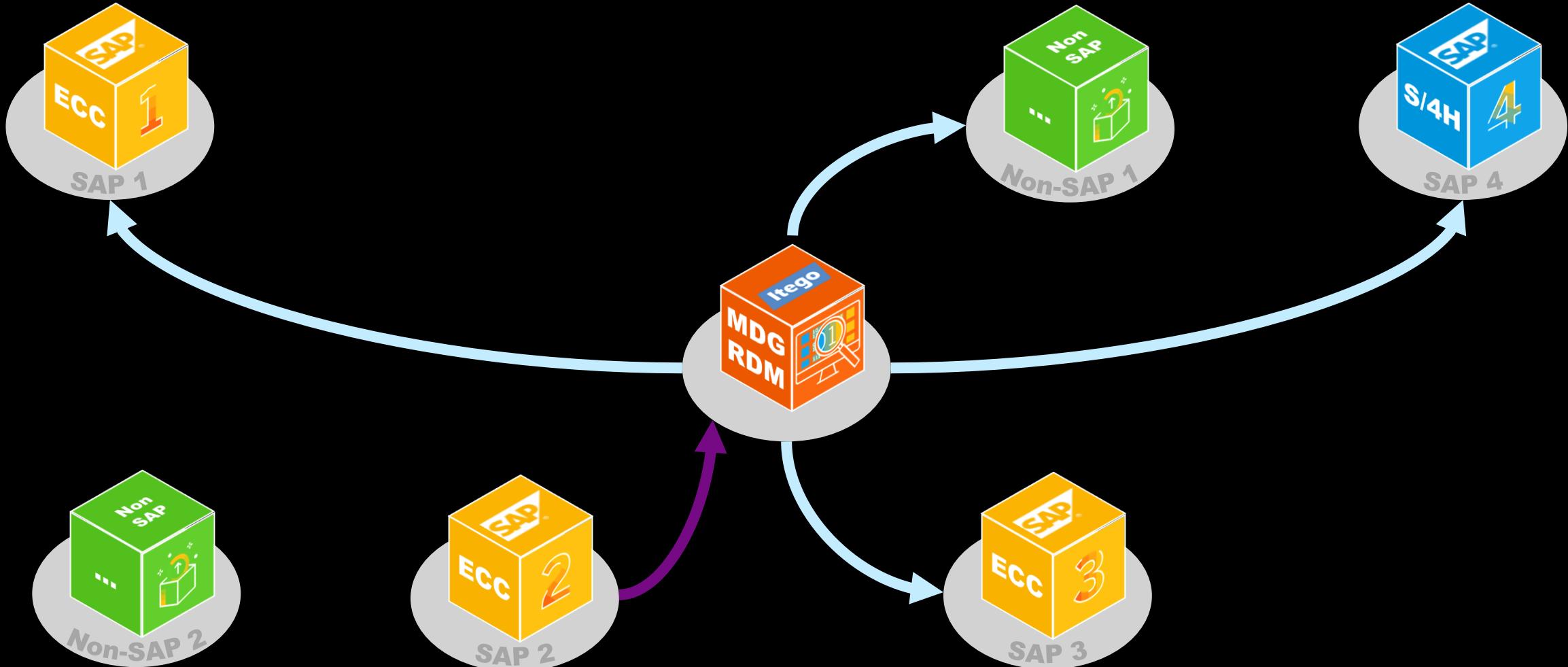
Itego Reference Data Harmonization

Step 1: Consolidation



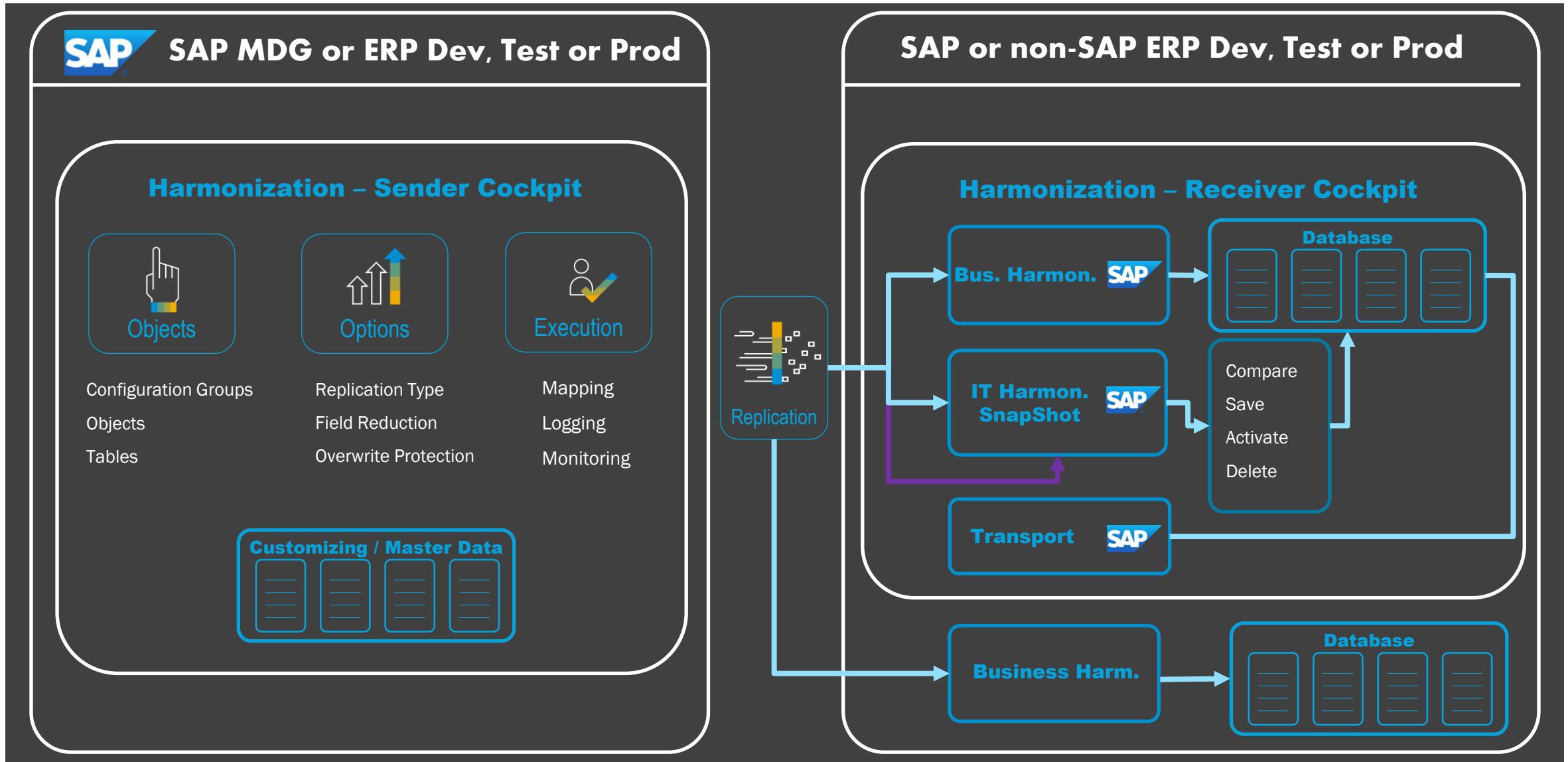
Itego Reference Data Harmonization

Step 2: Synchronization



Itego Reference Data Harmonization

Harmonization Cockpits



Itego Reference Data Harmonization

Sender Cockpit – Configuration, Sending, Monitoring

Expert Send/Receive



Groups and ForeignKeys

Configuration Groups	Foreign Keys
Business Objects	Recreate Foreign Keys

Send and Activate

Send	Monitoring
Activation	Logging

Settings

Field Reduction	Field Reduction
Overwrite Protection	

RefData Harmonization - Groups		
Configuration G...	Table Name	Object key
<input type="checkbox"/> FUNCTIONAREA	FAGL_SEGM	100*
<input type="checkbox"/> SAP-MDGF	FAGL_SEGMT	100*
<input type="checkbox"/> SAP-MDGF	J_1AINFMET	100*
<input type="checkbox"/> SAP-MDGF	J_1AINFMTX	100*
<input type="checkbox"/> SAP-MDGF	J_1AINFSKS	100*
<input type="checkbox"/> SAP-MDGF	SKM1	100*
<input type="checkbox"/> SAP-MDGF	T001	100*
<input type="checkbox"/> SAP-MDGF	T001S	100*
<input type="checkbox"/> SAP-MDGF	T002	100*
<input type="checkbox"/> SAP-MDGF	T003	100*
<input type="checkbox"/> SAP-MDGF	T004	100*
<input type="checkbox"/> SAP-MDGF	T004F	100*
<input type="checkbox"/> SAP-MDGF	T004G	100*
<input type="checkbox"/> SAP-MDGF	T004T	100*
<input type="checkbox"/> SAP-MDGF	T004V	100*
<input type="checkbox"/> SAP-MDGF	T005	100*
<input type="checkbox"/> SAP-MDGF	T005S	100*
<input type="checkbox"/> SAP-MDGF	T006	100*

ObjectSelection

Table(s): BNKA to:
View(s): to:
Objectgroup(s): SAP-MDGF to:

ALE / WebService

MessageType: /ITG/GENERIC
* Logical System: IR1200
Port for WebService:

Mode

Transfer Single Bundle SnapShot

Options

Scope	<input type="radio"/> with address <input checked="" type="radio"/> without address
Heterogen	<input type="radio"/> Yes <input checked="" type="radio"/> No
Logging	<input checked="" type="radio"/> Yes <input type="radio"/> No
Changes	<input type="radio"/> Yes <input checked="" type="radio"/> No
OnlineSele	<input type="radio"/> Yes <input checked="" type="radio"/> No
Test	<input type="radio"/> Yes <input checked="" type="radio"/> No
DetailList	<input checked="" type="radio"/> Yes <input type="radio"/> No

Idocs selected : 00000003

IDoc number	Status	Status Grouping	IDoc number	Status	Partn.no.
106001	03	<input checked="" type="checkbox"/>	88001	53	IH1400
106002	03	<input checked="" type="checkbox"/>	39001	53	IR1200
106003	03	<input checked="" type="checkbox"/>	39002	53	IR1200

Itego Reference Data Harmonization

Receiver Cockpit – Controlled Consolidation (Comparison, Activation, Logging)

Expert Send/Receive



Groups and ForeignKeys

Configuration Groups	Foreign Keys
Foreign Keys	

Business Objects

Recreate Foreign Keys

Send and Activate

Send	Monitoring
Monitoring	

Activation Logging

Activation	Logging
------------	---------

Settings

Field Reduction	Field Reduction
Field Reduction	

Overwrite Protection

Compare (Overview)

- All differences
- Save Before Activate
- Set Active-Flags
- Delete Active-Flags
- Activate (all)
- Compare Addr.

Table Name	DB-Entries	AD-Entries	Short Description
TKA00	42		Control parameters for controlling areas
TKA01	39		Controlling Areas
TKA02	40		Controlling area assignment
TKA00	42		Control parameters for controlling areas
TKA01	39		Controlling Areas
TKA02	39		Controlling area assignment
TKA00	42		Control parameters for controlling areas
TKA01	39		Controlling Areas
TKA02	39		Controlling area assignment

Table	Key	Field Name	Short Description	Long Field Label	SnapShotValue	DBValue
TKA01	xxx0003	BEZEI	Name of the controlling area	Name	SAP US (is-ht-sw)	SAP US (demo)
		VNAME	Person Responsible for the Controlling Area	Person Responsible		IT_ALL_01

Table Name DB-Entries Short Description DB-Only Ind_Only Diff Ident

Table Name	DB-Entries	Short Description	DB-Only	Ind_Only	Diff	Ident
TKA00	42	Control parameters for controlling areas				42
TKA01	39	Controlling Areas			1	38

- Copy Text
- Details
- Optimize Width
- Unfreeze Columns
- Spreadsheet...
- Delete
- Compare
- Compare (Overview)
- All differences

- Copy Text
- Details
- Optimize Width
- Unfreeze Columns
- Spreadsheet...
- Activate

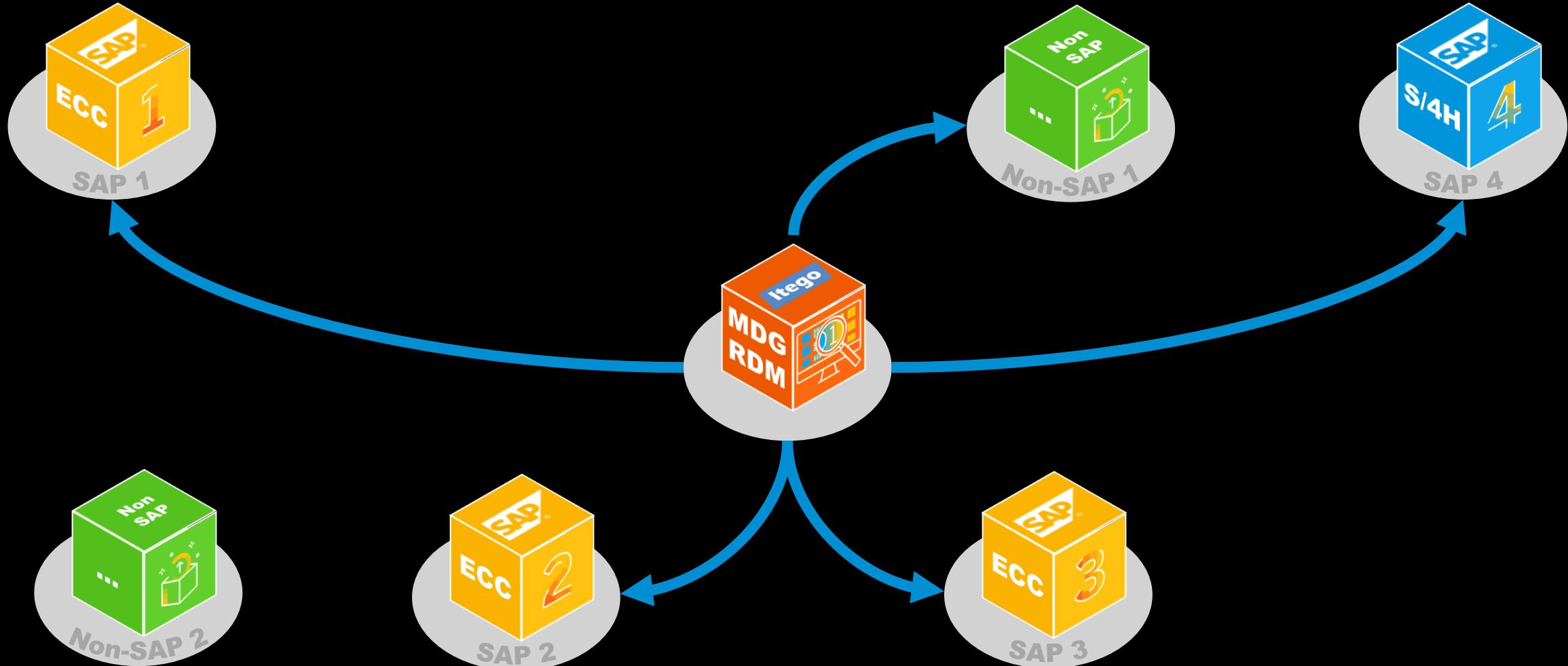
CO Area	Name	Crcy	Chart of Accts	FV
0003	SAP US (is-ht-sw)	USD	INT	K4



HOW RDM Governance

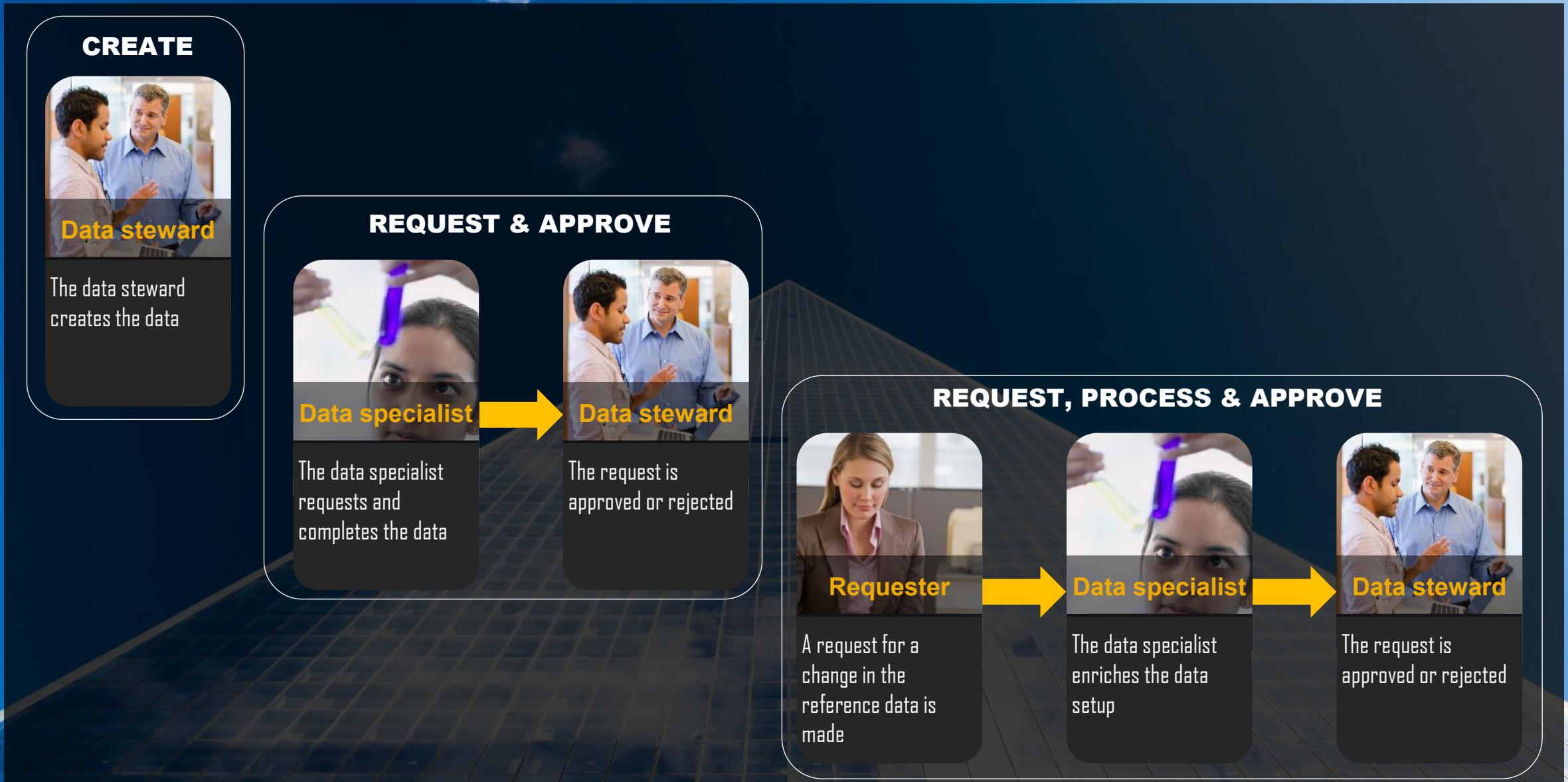
Itego Reference Data Governance

Workflow Driven Maintenance

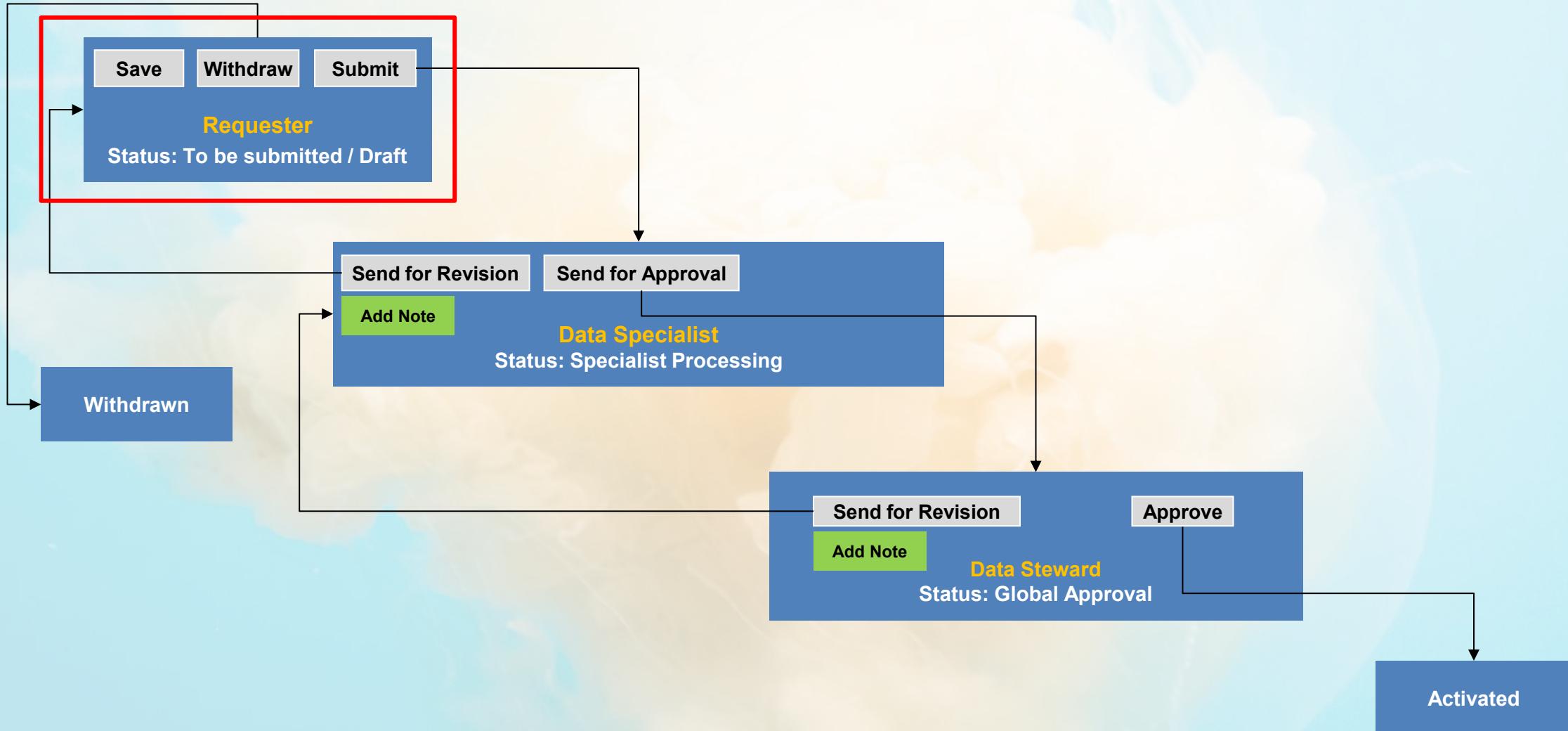


Itego Reference Data Governance

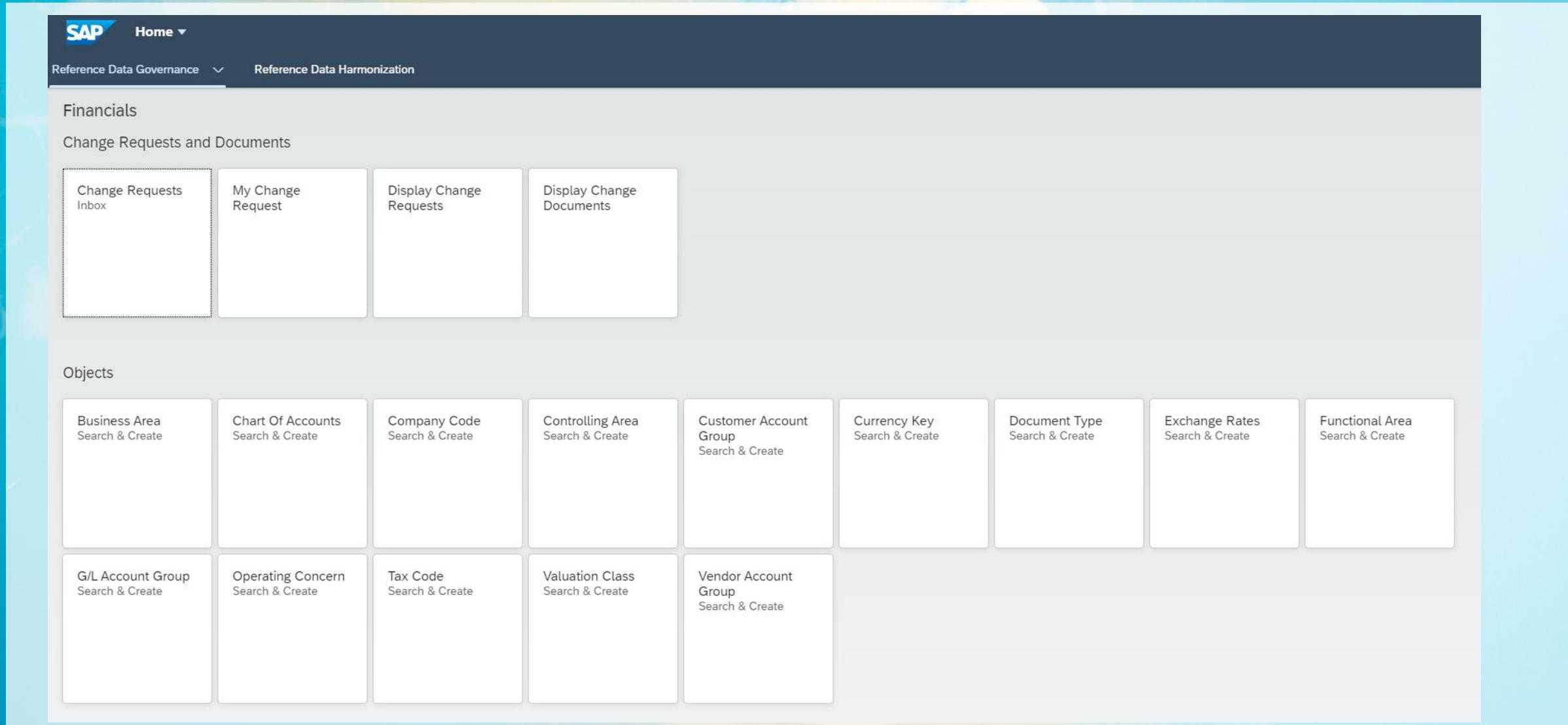
Processes for all Objects



Workflow: Request, Process & Approve



Demo: Short Overview



The screenshot shows the SAP Reference Data Governance home page. The top navigation bar includes the SAP logo, a "Home" dropdown, and menu items for "Reference Data Governance" and "Reference Data Harmonization".

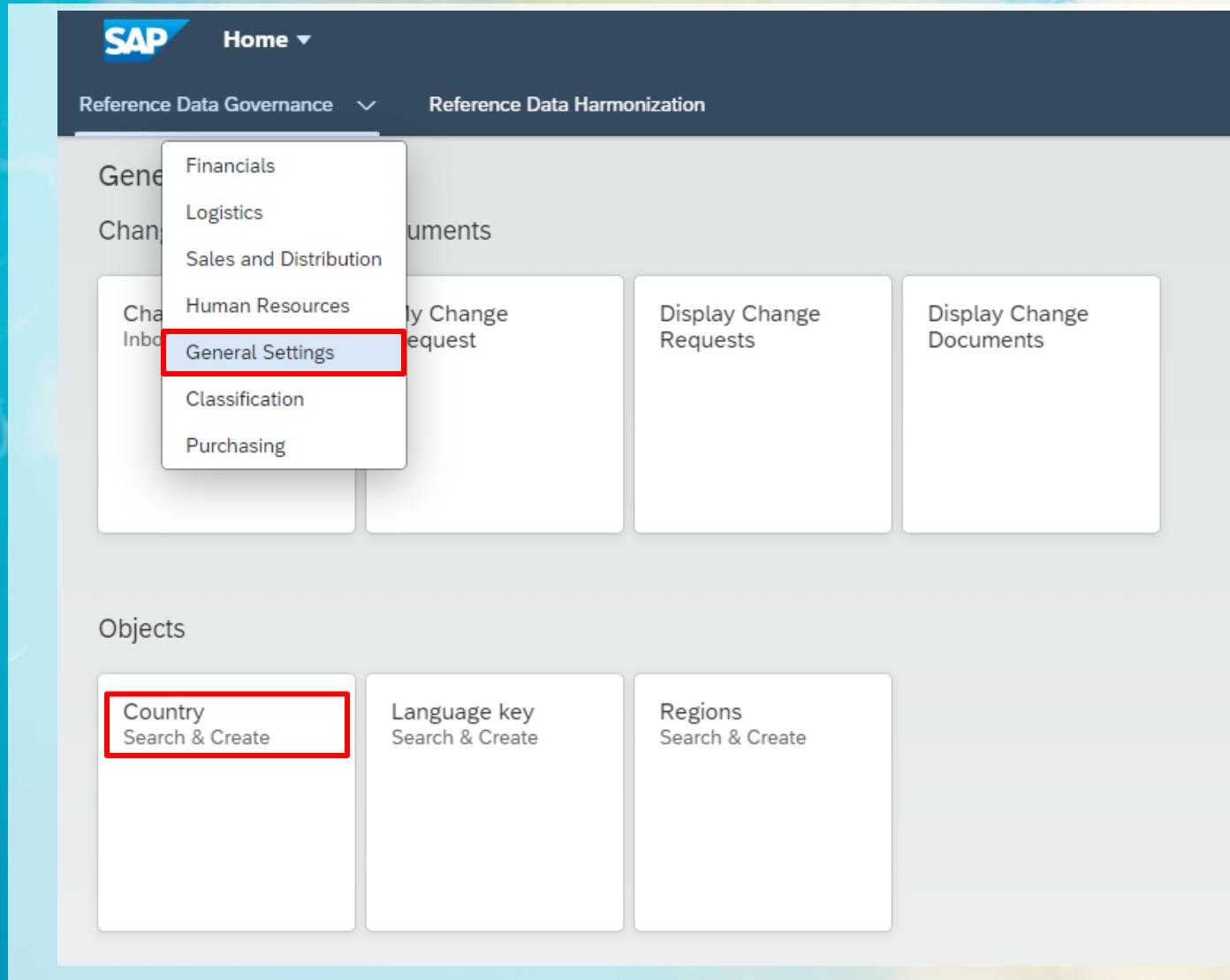
The main content area is titled "Financials" and contains a section for "Change Requests and Documents" with four buttons:

- Change Requests Inbox
- My Change Request
- Display Change Requests
- Display Change Documents

Below this, the page is titled "Objects" and displays a grid of 10 search and create buttons:

Business Area Search & Create	Chart Of Accounts Search & Create	Company Code Search & Create	Controlling Area Search & Create	Customer Account Group Search & Create	Currency Key Search & Create	Document Type Search & Create	Exchange Rates Search & Create	Functional Area Search & Create
G/L Account Group Search & Create	Operating Concern Search & Create	Tax Code Search & Create	Valuation Class Search & Create	Vendor Account Group Search & Create				

Select or Search for Country



The screenshot shows the SAP Reference Data Governance interface. The top navigation bar includes the SAP logo, a Home button, and tabs for Reference Data Governance and Reference Data Harmonization. A sidebar on the left lists various categories: General (highlighted in blue), Financials, Logistics, Sales and Distribution, Human Resources, General Settings (highlighted with a red box), Classification, and Purchasing. The main content area is titled 'Change Requests' and contains three cards: 'Display Change Requests', 'Display Change Requests', and 'Display Change Documents'. Below this is a section titled 'Objects' with three cards: 'Country Search & Create' (highlighted with a red box), 'Language key Search & Create', and 'Regions Search & Create'.

Search and Change

SAP Search: Country

Search Method:

Search Criteria Saved Searches:

Country/Region Key	equal to	Value	<input type="button"/>	<input type="button"/>
Description (short text)	equal to	G*	<input type="button"/>	<input type="button"/>
Description (long text)	equal to	Value	<input type="button"/>	<input type="button"/>
ISO Code	equal to	Value	<input type="button"/>	<input type="button"/>

Maximum Number of Results: 100

Save Search As:

Search Clear Entries Reset to Default

Result List: 16 records found

New Copy Mass Change Change Documents Replication Status Replicate Change Requests

Pending Ch...	Country/Region Key	Description (short text)	Description (long text)	ISO Code	ISO Code 3 Characters	ISO Code Numeric 3...
	DE	Germany	Germany	DE	DEU	276
	GA	Gabon	Gabon	GA	GAB	266
	GD	Grenada	Grenada	GD	GRD	308
	GE	Georgia	Georgia	GE	GEO	268
	GG	Guernsey	Guernsey (Channel Islands)	GG	GGY	831
	GH	Ghana	Ghana	GH	GHA	288
	GI	Gibraltar	Gibraltar	GI	GIB	292
	GL	Greenland	Greenland	GL	GRL	304
	GM	Gambia	Gambia	GM	GMB	270
	GN	Guinea	Guinea	GN	GIN	324

Audit Information / Highlight Change / Descriptions / Governance

> Change Request

↓ Audit Information

Audit Information

Created On: 05.03.2021 17:23:22	Created By: IT_ALL_02
Changed On: 04.08.2022 16:20:44	Changed By: IT_ALL_01
Approved On: 04.08.2022 16:19:23	Approved By User: IT_ALL_01

↓ Country

Country/Region Key: DE

General data

Name: Germany	Date Format and Decimal Format
Long name: Germany	Decimal Format: 1.234.567,89
Nationality:	Date format: DD.MM.YYYY (Gregorian Date)
Nationality (Long):	Address Checks
Vehicle Ctry/Reg Key: D	Postal code required: <input checked="" type="checkbox"/>
Index-Based Currency:	PO Box postal code: <input checked="" type="checkbox"/>

Attributes

ISO Code: DE	Language Key: Hard Currency: EUR	Address format
ISO Code 3 Characters: DEU	EU Member: <input checked="" type="checkbox"/>	Address layout key: 015
ISO Code Numeric 3-Chars.: 276	Net Discount Base: <input type="checkbox"/>	Net Tax base: <input type="checkbox"/>
Procedure: TAXD	Capital Goods Ind.: <input type="checkbox"/>	
Trde Stat.Short Name: DEUT		
Intrastat Code: 004		

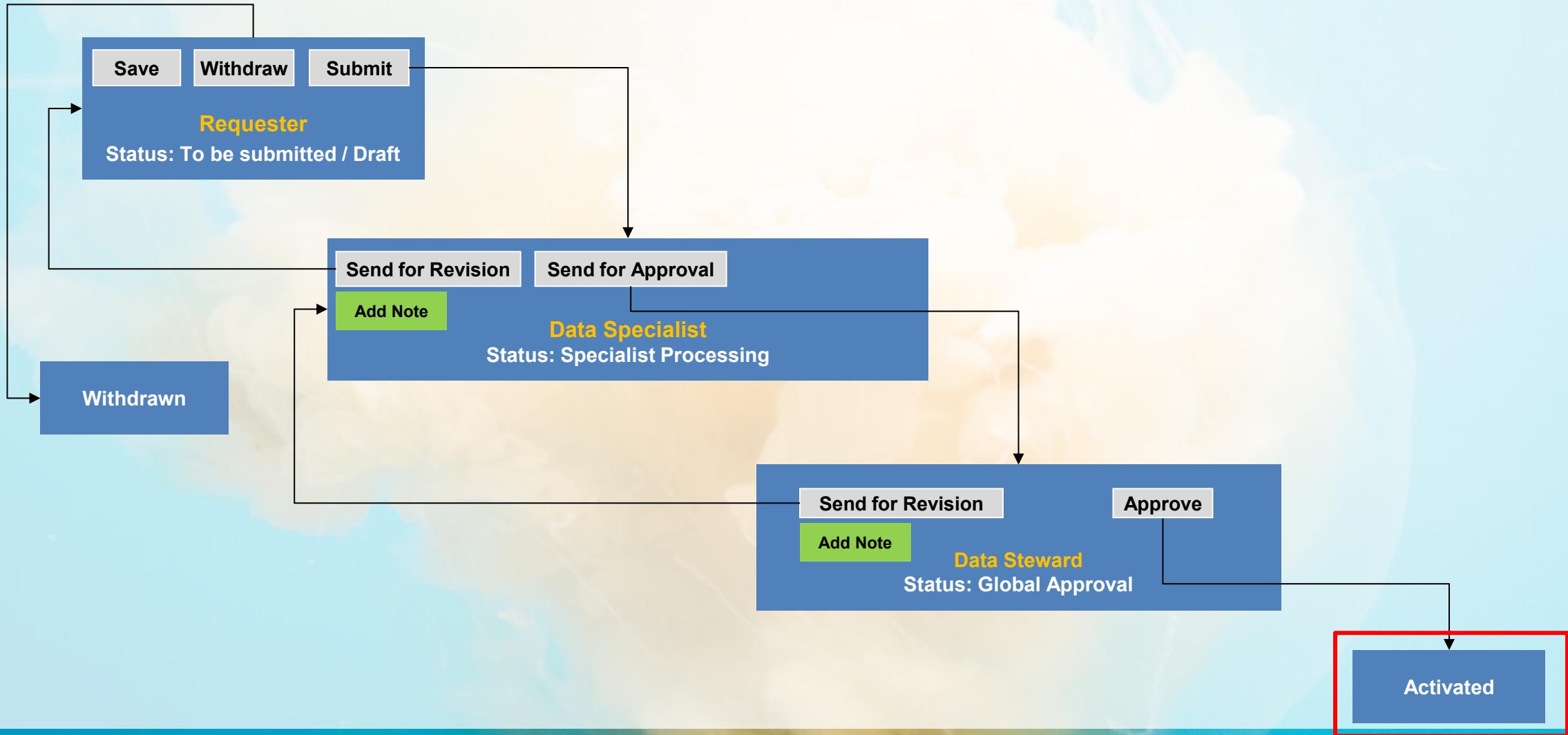
↓ Country Descriptions

New Copy

Actions	Changes	Language Key	Language Key Description	Description (long text)
<input type="radio"/>		DE	German	Deutschland
<input type="radio"/>		EN	English	Germany

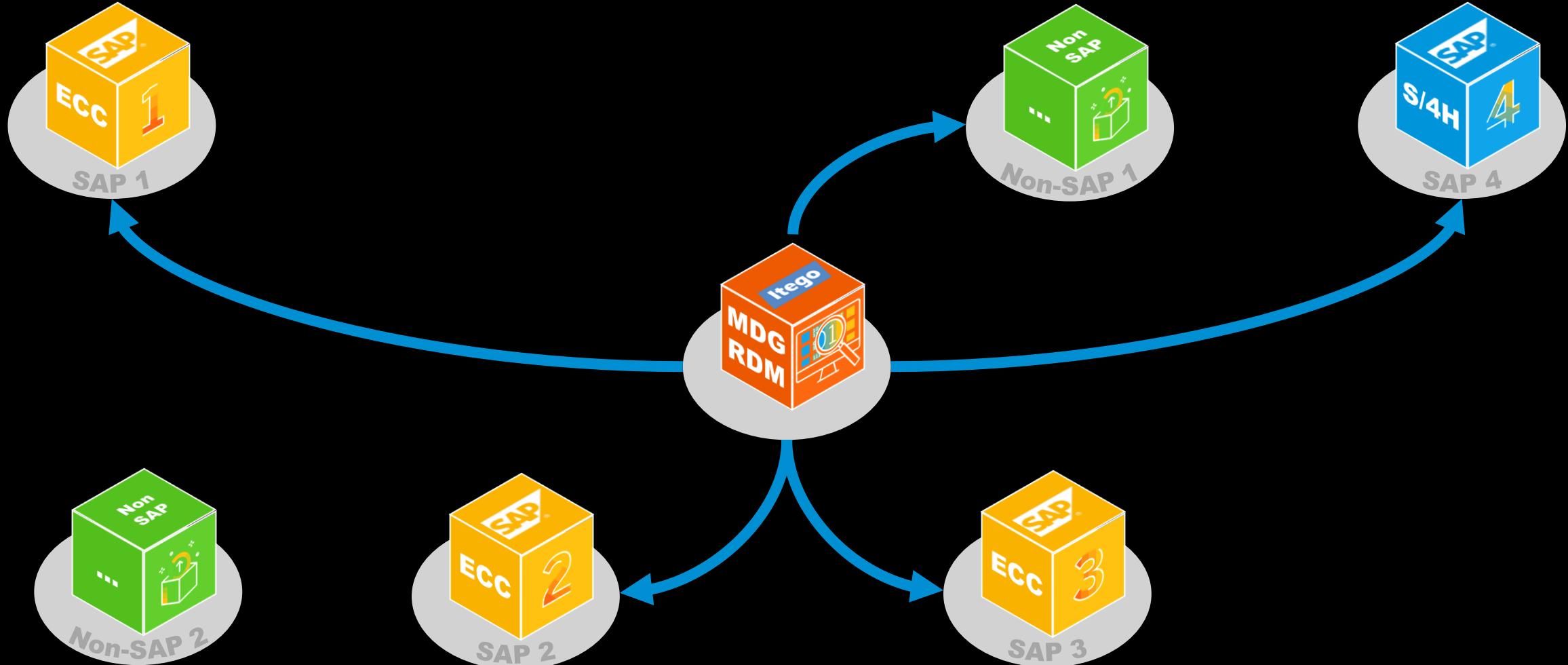
Save Send for Revision Approve Reject Withdraw Cancel

Workflow: Request, Process & Approve



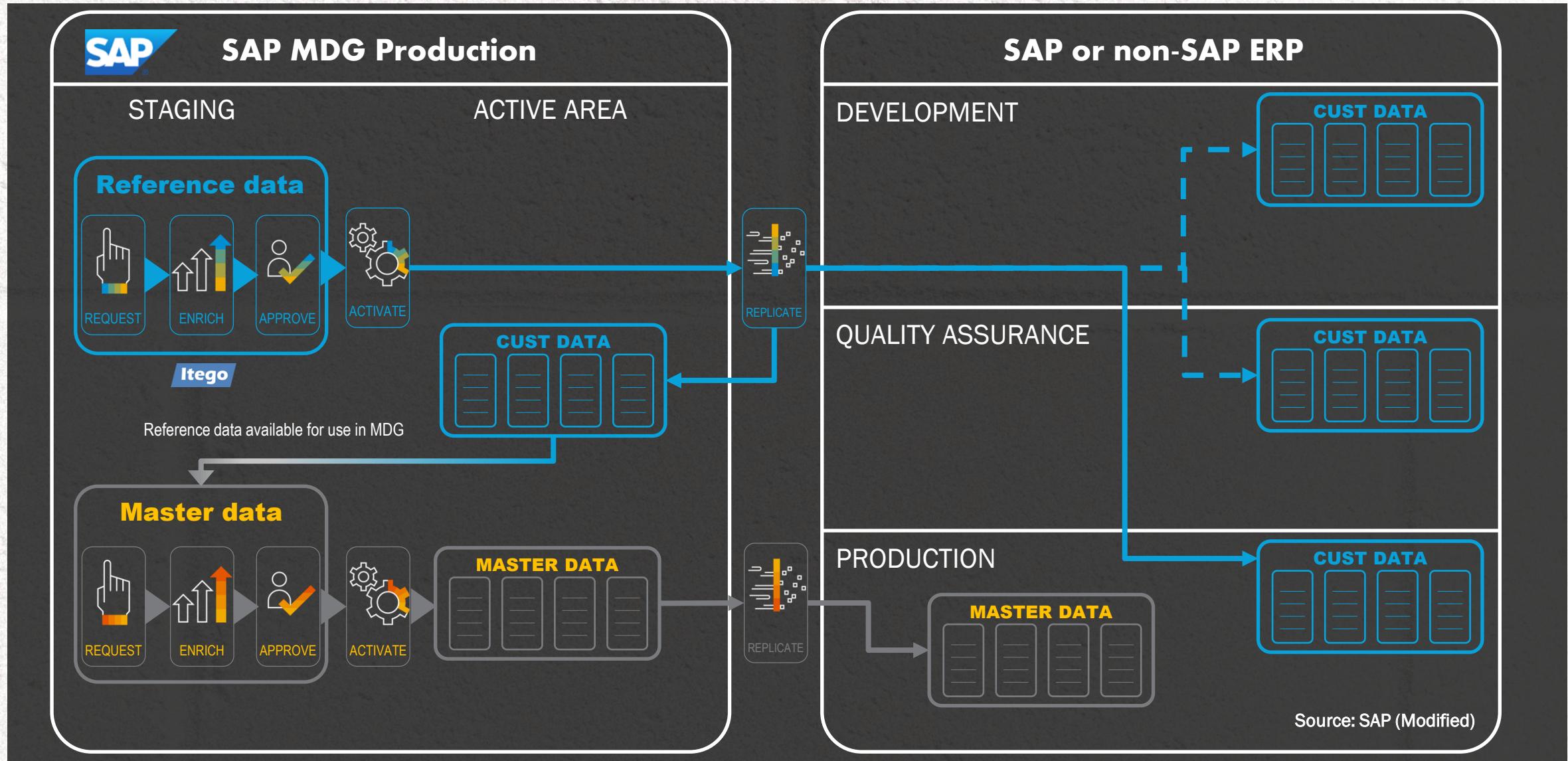
Itego Reference Data Governance

Data Replication



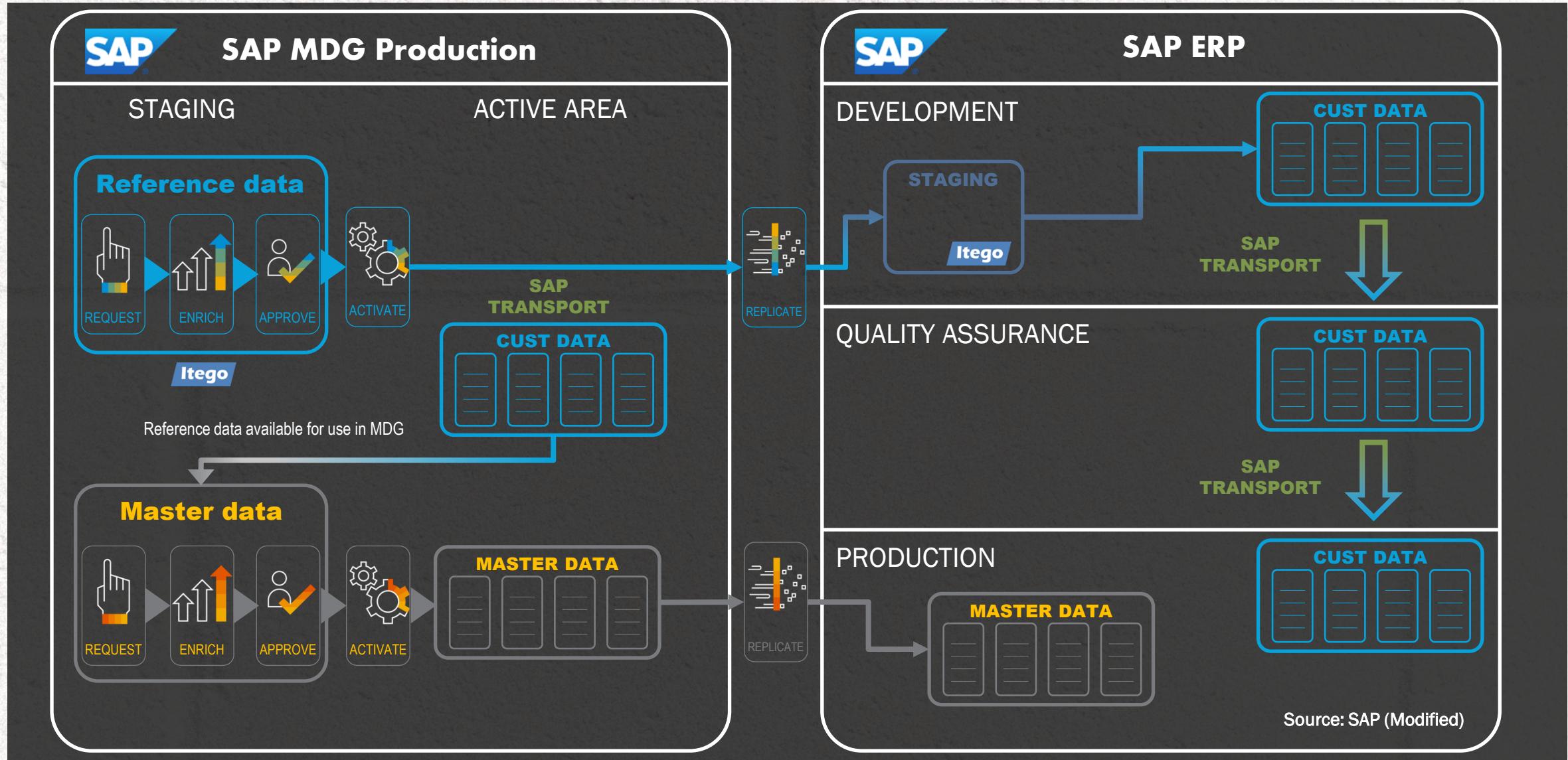
Itego Reference Data Management

Business Controlled Governance Alternative

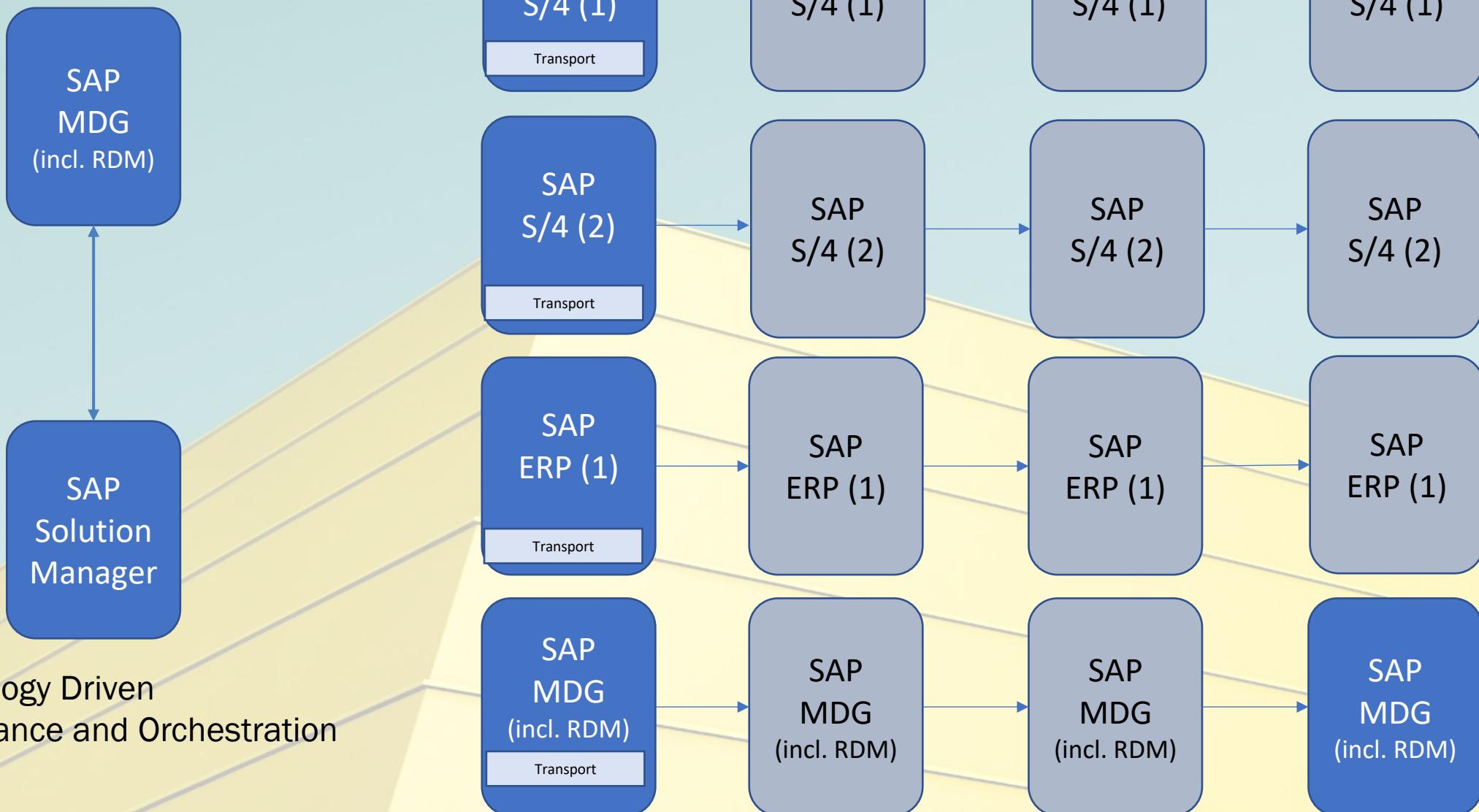


Itego Reference Data Management

Full IT Governance Alternative



Business Driven Harmonization and Governance



Summary / FAQ / Q&A

Topics

- Value Add and Use Cases
- Customers and who needs it and when?
- License Model and How to engage

Links

[Itego Reference Data Management – Website](#)

Blogs: [RDM](#), [MDF](#) and [Custom Objects](#), [Solution Manager](#)





Trusted data. Delivered.

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Itego Reference Data Governance

Object Types

Financials, HR, General Settings

Business Area	Chart of Accounts	Company Code	Company ID	Controlling Area
Customer Acc. Group	Currency	Document Type	Exchange Rate	Functional Area
Gen.Ledger Acc. Group	Operating Concern	Posting Period Variant	Tax Code	Valuation Class
Vendor Acc. Group	Personnel Area	Country & Region	Holiday Cal & Pub. Hol.	Language

Logistics and Purchasing

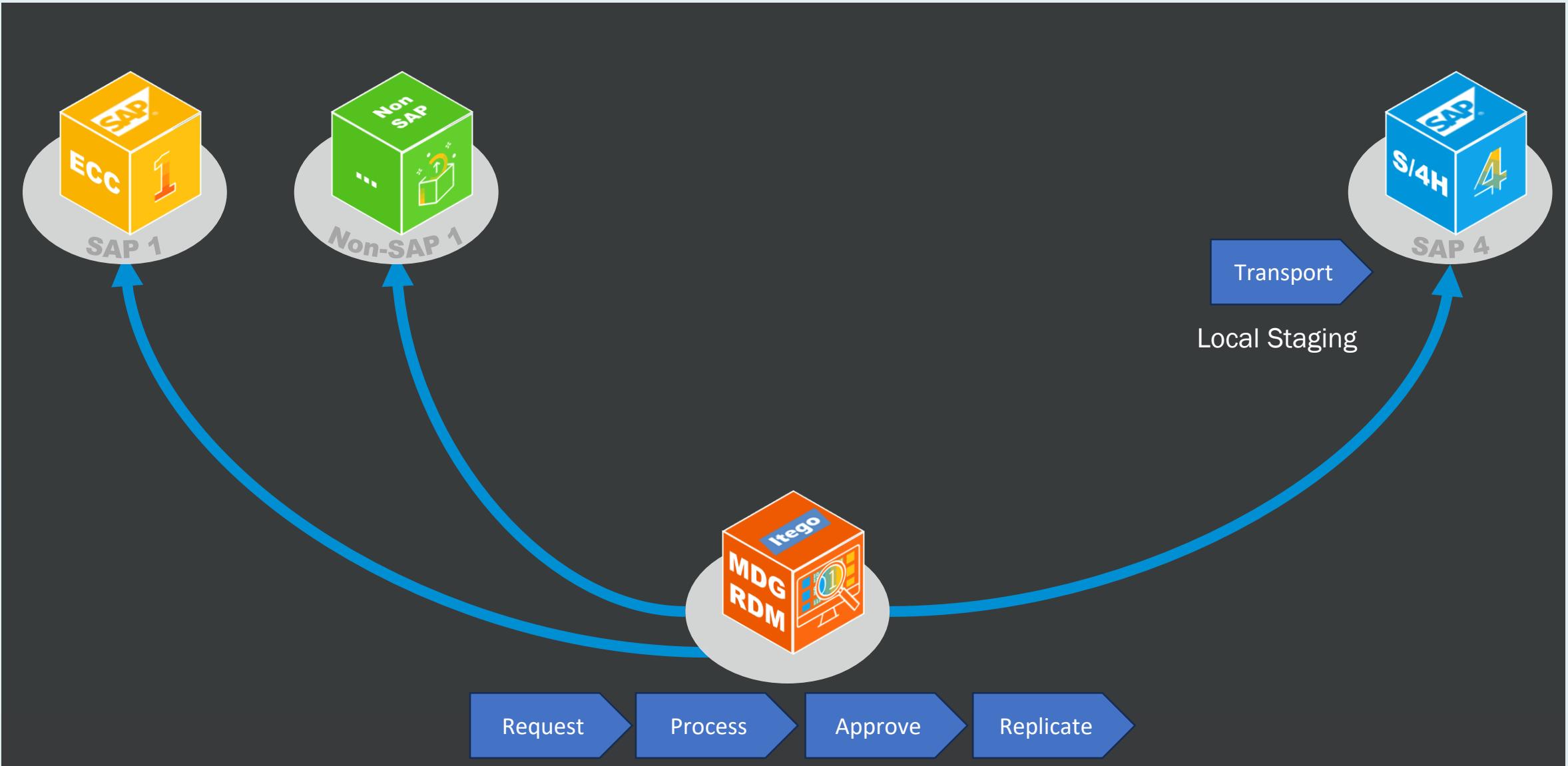
BOM Usage	Division	Factory Calendar	Laboratory/Office
Location	Material Group	Material Status	Material Type
MRP Area	MRP Controller	MRP Profile	MRP Type
Plant	Storage Location	Unit of Measure	Characteristics
Classes	Planning Scope	Purchasing Group	Purchasing Org.

Sales & Distribution

Distribution Channel	Incoterms
Payment Terms	Product Hierarchy
Sales Group	Sales Organization
Sales Office	Shipping Conditions
Shipping Type	Shipping Point

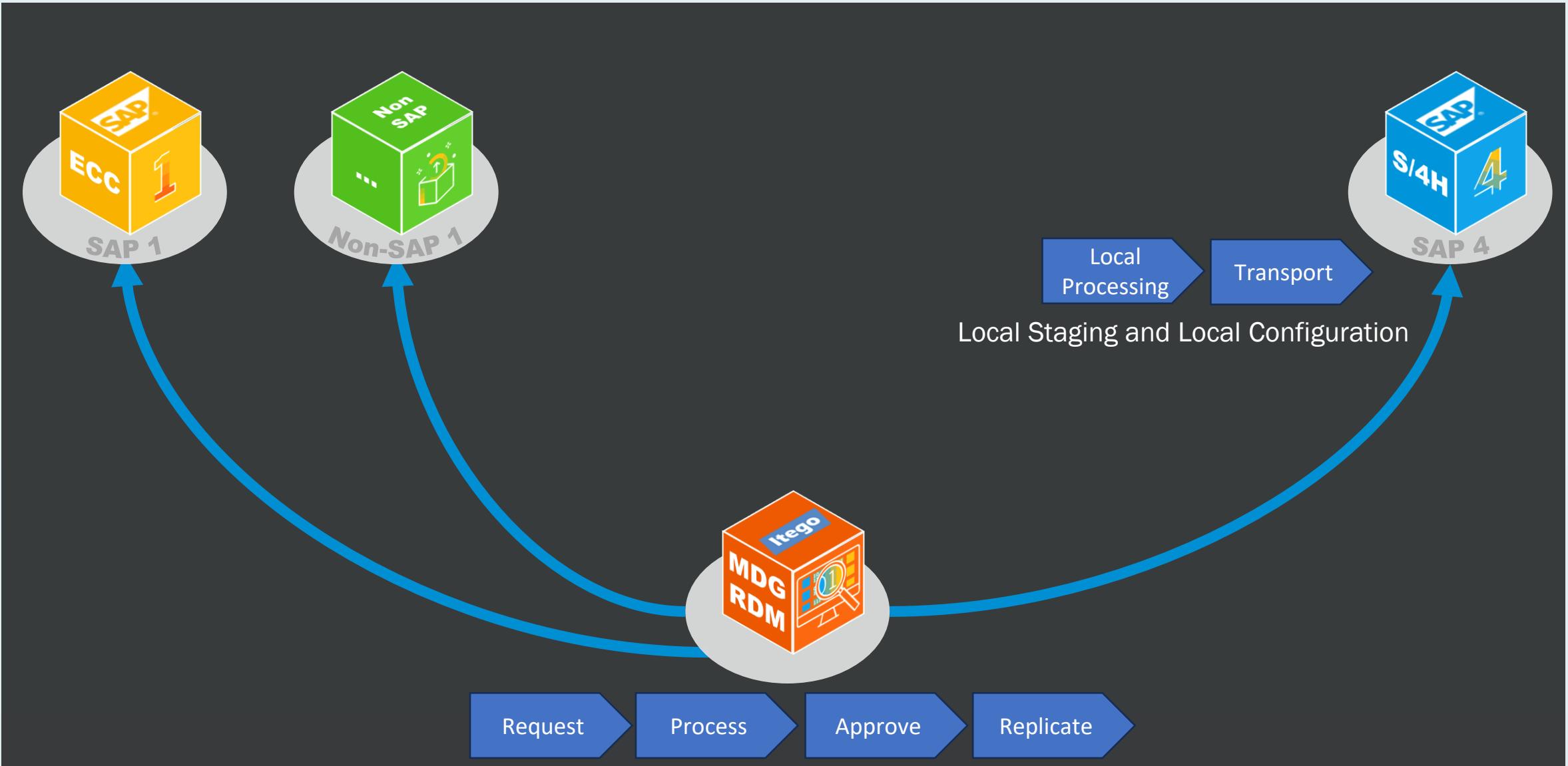
Itego Reference Data Governance

Process Driven Maintenance: Advanced Scenario (Full IT Governance Alternat.)



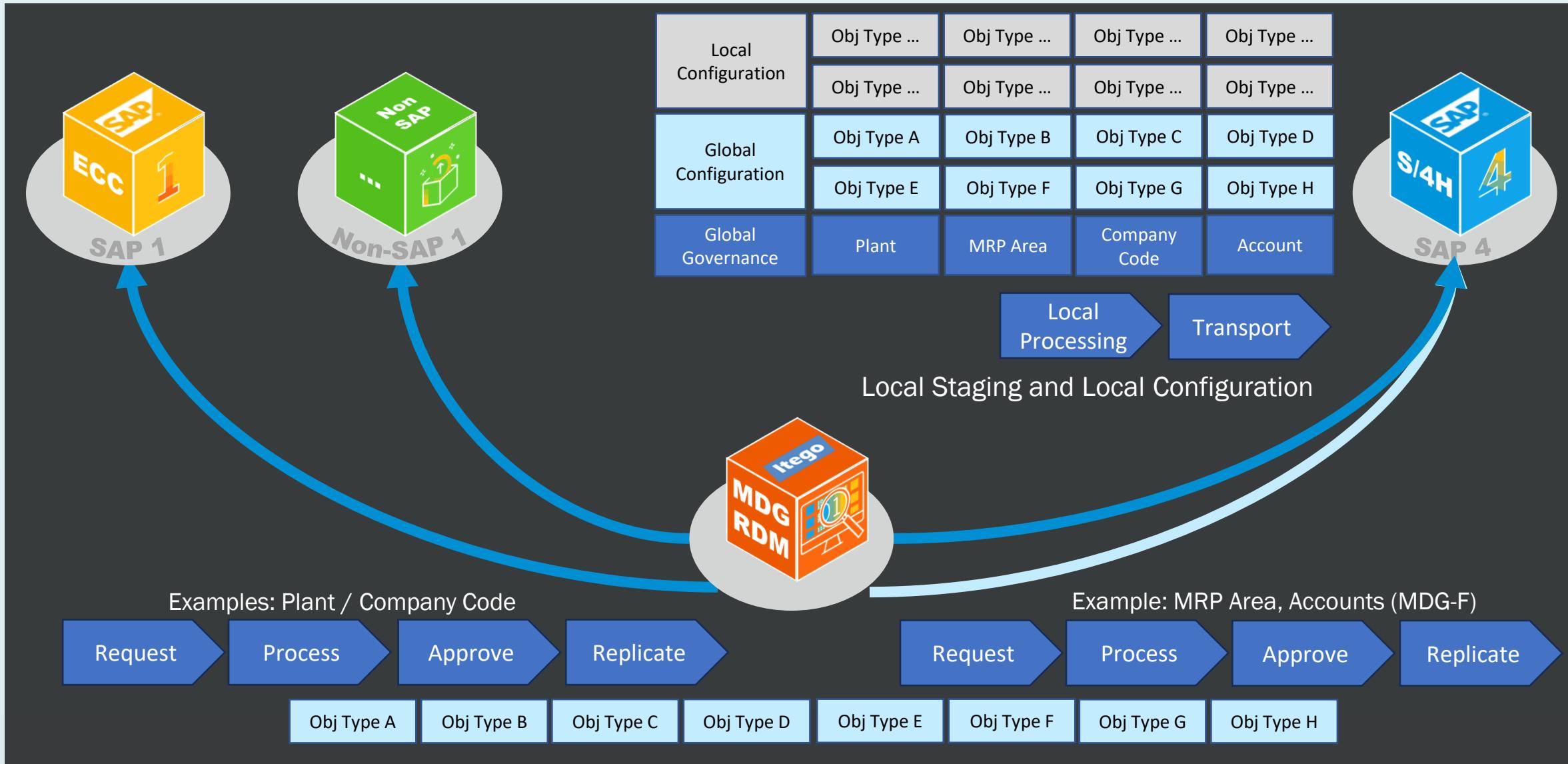
Itego Reference Data Governance

Process Driven Maintenance: Extended Scenario (Full IT Governance Alternat.)



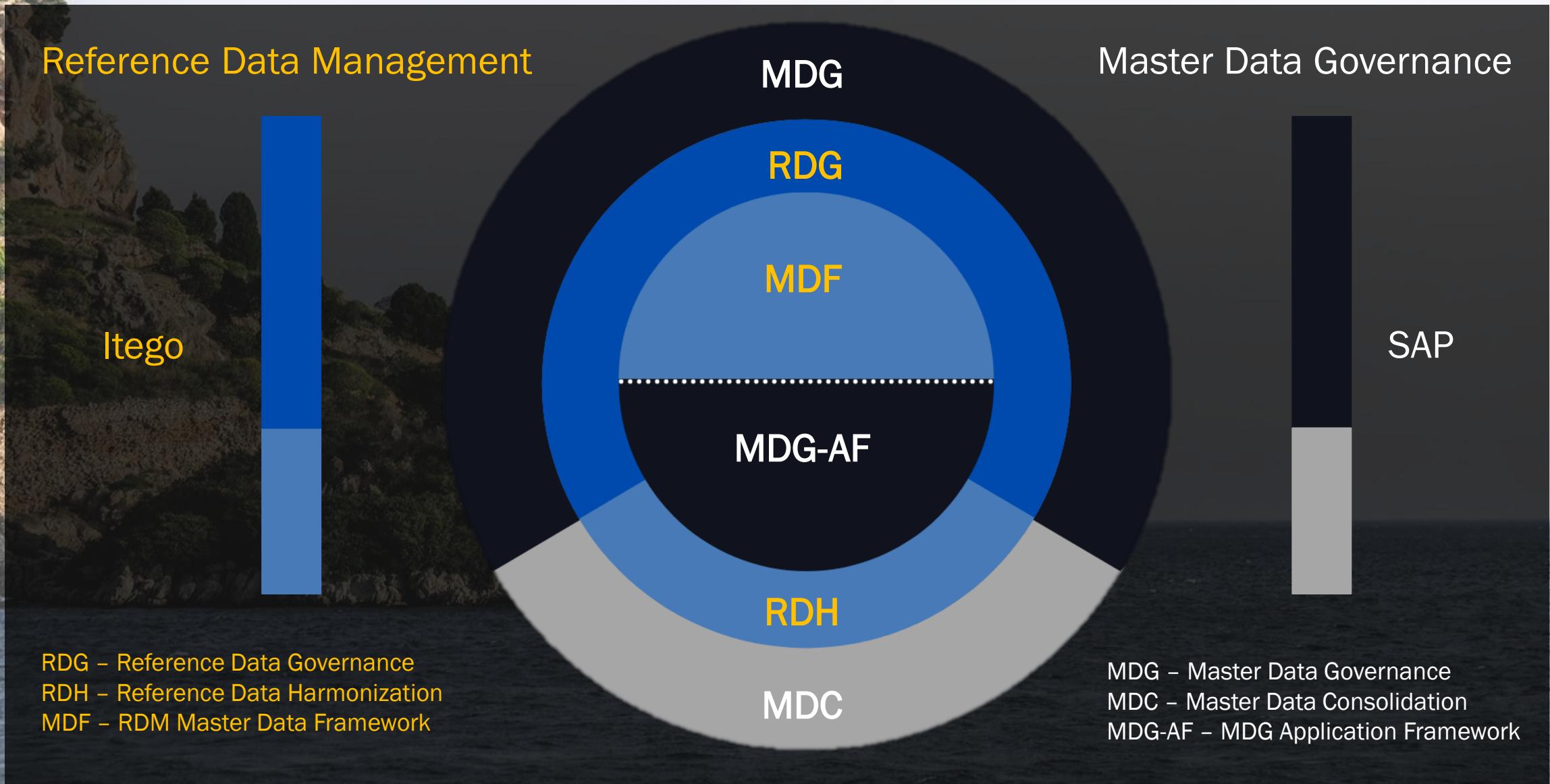
Itego Reference Data Governance

Process Driven Maintenance: Full Scenario (including Harmonization)



Itego Reference Data Management

How? Solution Components



Itego Reference Data Management

How? Solution Components

Complete and Integrated MDG Application

- Data Model with pre-delivered content
- Workflows for Reference Data Governance
- User Interfaces for Reference Data and Meta Data
- Data Replication to Local Staging Area in SAP or non-SAP

Details

- Flexible Data Model
- Rule Based Workflows
- User Interfaces (Web Dynpro)
- Data Transfer for Initial Load (XML or CSV)
- Data Replication with Monitoring for Reliability
- Change Documents, Change Request Monitoring

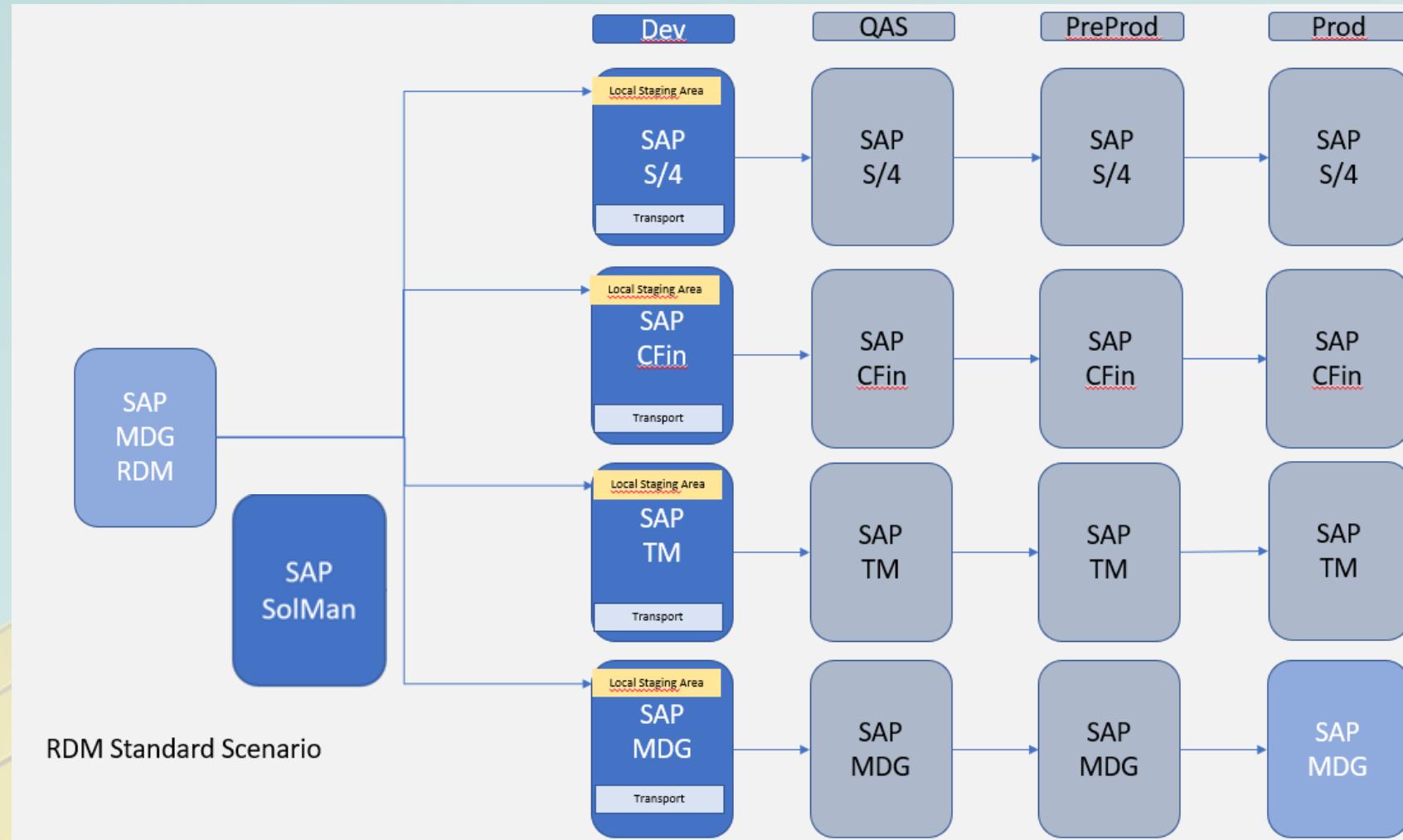
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Integration with SAP S/4HANA®



HOW Solution Manager Integration

Itego Reference Data Management

Full IT Governance Alternative, Standard Scenario with or without Solution Manager



Itego Reference Data Management

Solution Manager Integration: Create ChaRM Ticket



Create ChaRM Ticket from Local Staging Area

Maintain Local Staging Area

StagContent Show Logs Show SnapShots

Process mode

Enable local customizing
 Global customizing only
 Finalize local customizing

Selection of objects and transport job

Objects

Transport job

Target system

SolMan-ConfigID to

Incl. local obj.,allow deletion

write protocol into logging

write snapshots

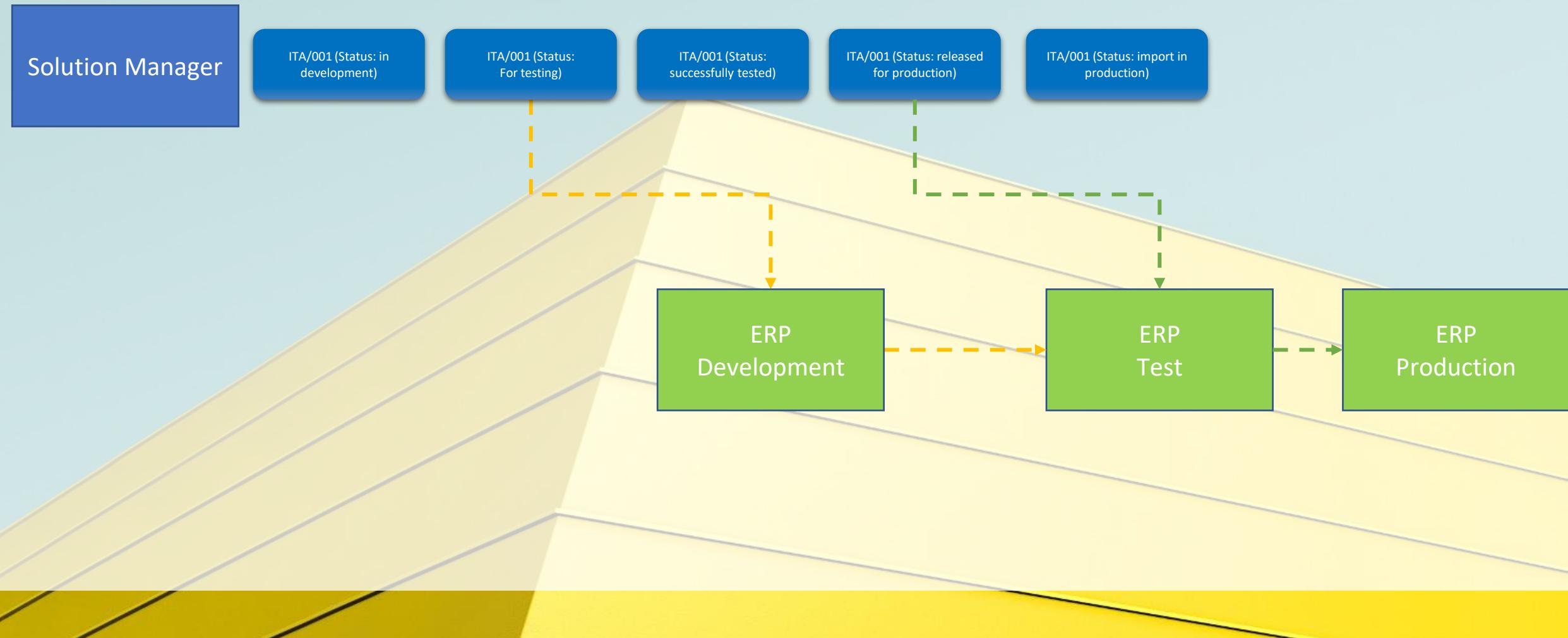
Standard-Transport-Text

SolMan: Create Ticket

data Entry: 400Z001
00060 AFTER: Entries in CustomizingTable T024E found
Transport ITRK906050 successful created
Task ITRK906051 successful created
SolMan-Ticket created: 8000002600

Itego Reference Data Management

Solution Manager Integration: Process ChaRM Ticket



Process ChaRM Ticket in Solution Manager / 1

< Change Request Management

Home
Master Data
Inbox
Requirements Man... >
Change Request M... >
IT Service Manage... >
Service Operations >

Create
Incident
Incident from Template
Service Request
Change Cycle
Request for Change
RFC from Template
Task
Knowledge Article

Administrative Changes
Change Cycles
Change Documents
Defect Corrections
General Changes
Git-enabled Changes
Normal Changes
Request for Change Templates
Requests for Changes
Standard Changes
Urgent Changes

< Home
Master Data
Inbox
Requirements Man... >
Change Request M... >
IT Service Manage... >
Service Operations >

Create
Incident
Incident from Template
Service Request
Change Cycle
Request for Change
RFC from Template
Task
Knowledge Article
Problem
Defect Correction
Business Requirement
IT Requirement
Service Order

Search: Standard Changes

Document Type is Standard Change
Document ID contains
Free Text contains
Description contains
Time Frame is Today

Maximum Number of Results: 100

Search Clear Save Search As: Include View

Result List: 3 Standard Changes Found

New Refresh

Change ID	Description	Priority	Status	Create...	Category	Relate...	Reque...	Reque...
8000002596	Test	4: Low	In De...	07.10....			07.10....	10.10....
8000002598	RDM: 2. Test	2: High	In De...	07.10....			07.10....	21.10....
8000002600	RDM Reference Data - Purchasing Org	2: High	Created	07.10....			07.10....	14.10....

Process ChaRM Ticket in Solution Manager / 2

Save | Display | Cancel | Edit | Create Follow-Up | Actions | Send E-Mail | Print Preview | Print | Display Object Relationships | More

Status Overview

1 Created 2 In Development 3 To Be Tested 4 Successfully Tested 5 Imported into Production 6 Withdrawn

Details

General Data

ID:	8000002668
Description:	RDM: Material Group - T023, T023T
Developer:	Mr. SAP Backoffice
Tester:	
IT Operator:	
Change Manager:	Mr. SAP Consulting
Current Processor:	

Implementation Data

Change Cycle / Phase:	ITEGO Continous cycle
Type / ID:	Continual Cycle
Landscape / Branch:	ITEGO Solution RDM
Development Close:	
Go-Live Date:	

Project Planning

Project Name:	<None>
---------------	--------

Attachments

Attachment URL With Template Download Advanced

Actions	Name	Type
Properties	RDM - Local Staging Area Logging	Simple Text

```
Start: 2022-10-27T12:47:25
-----
Logging started
Delta-Mode selected
Processing started for Object: /ITR/B1072 table: T023
Processing started for Object: /ITR/B1072 table: T023T
Snapshot created with index(es): RDM-T023-124725 table: T023
00023 BEFORE: Entries in CustomizingTable T023 found
Staging entries for /ITR/T023 found 00001
Insert entries for T023 found 00001
Update entries for T023 found 00000
Insert entries for /ITR/T023 processed: 00001
data Entry: 20009
00024 AFTER: Entries in CustomizingTable T023 found
Snapshot created with index(es): RDM-T023T-124726 table: T023T
00028 BEFORE: Entries in CustomizingTable T023T found
Staging entries for /ITR/T023T found 00002
Insert entries for T023T found 00002
Update entries for T023T found 00000
Insert entries for /ITR/T023T processed: 00002
data Entry: 200D09
data Entry: 200E09
00030 AFTER: Entries in CustomizingTable T023T found
Transport IR1K900451 successful created
Task IR1K900452 successful created
Transport IR1K900451 could not be released
-----
End: 2022-10-27T12:47:25
-----
```

Process ChaRM Ticket in Solution Manager / 3

Status Overview

1 Created 2 In Development 3 To Be Tested 4 Successfully Tested 5 Imported into Production 6 Withdrawn

3, 4, 5 are highlighted with a yellow box.

Buttons: Save, Display, Cancel, Edit, Create Follow-Up, Actions, Send E-Mail, Print Preview, Print, Display Object Relationships, More

Status Overview

1 Created 2 In Development 3 To Be Tested 4 Successfully Tested 5 Imported into Production 6 Withdrawn

Details Edit

General Data

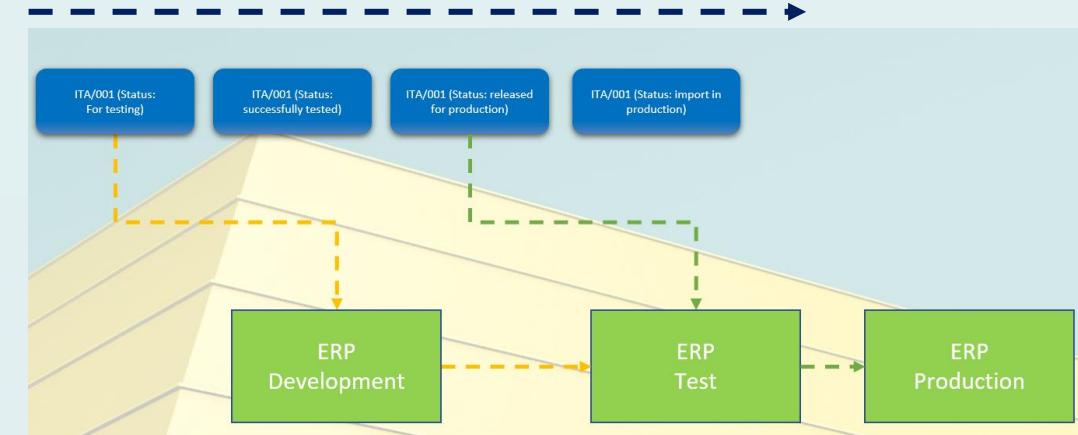
- ID: 8000002668
- Description: RDM: Material Group - T023, T023T (highlighted)
- Developer: Mr. SAP Backoffice
- Tester:
- IT Operator:
- Change Manager: Mr. SAP Consulting
- Current Processor:

Implementation Data

- Change Cycle / Phase: ITEGO Continous cycle
- Type / ID: Continual Cycle
- Landscape / Branch: ITEGO Solution RDM
- Development Close:
- Go-Live Date:

Project Planning

- Project Name: <None>

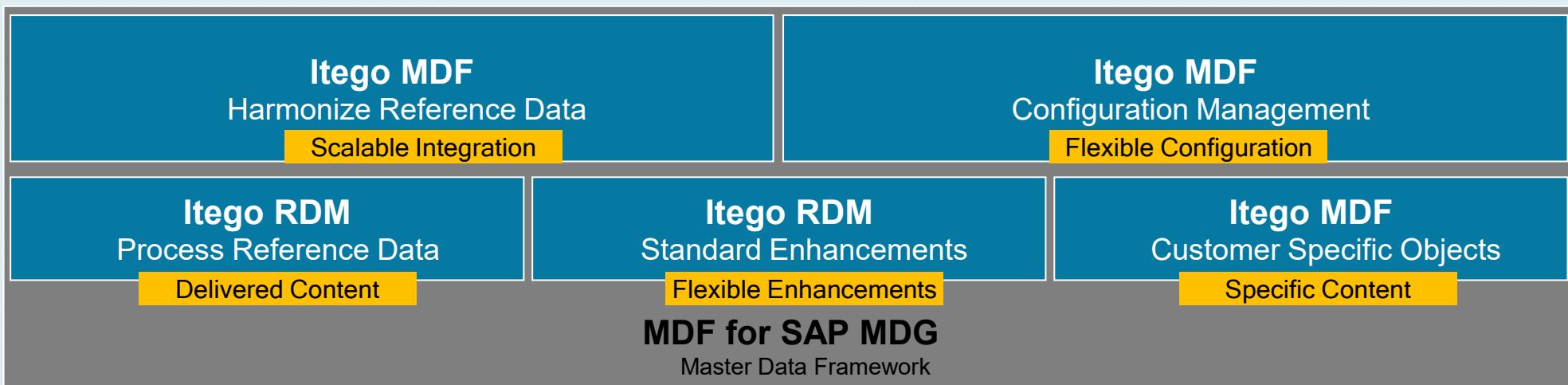
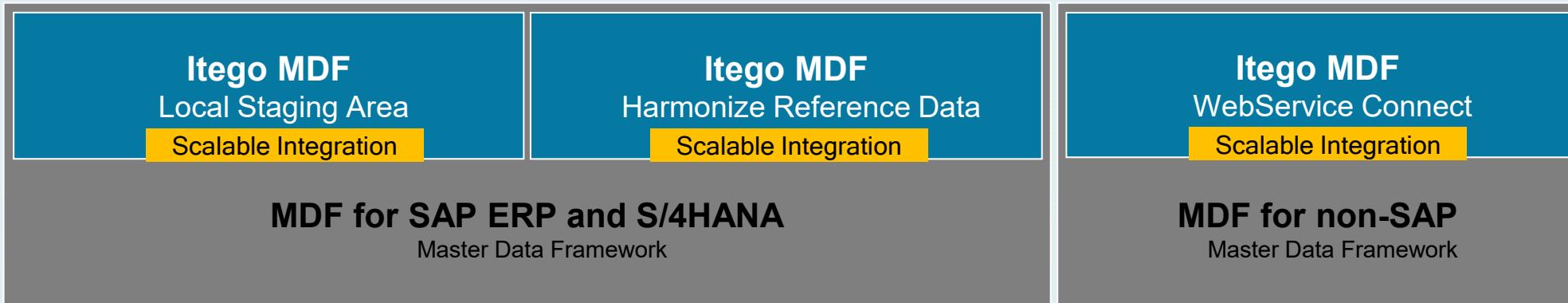




HOW Master Data Framework

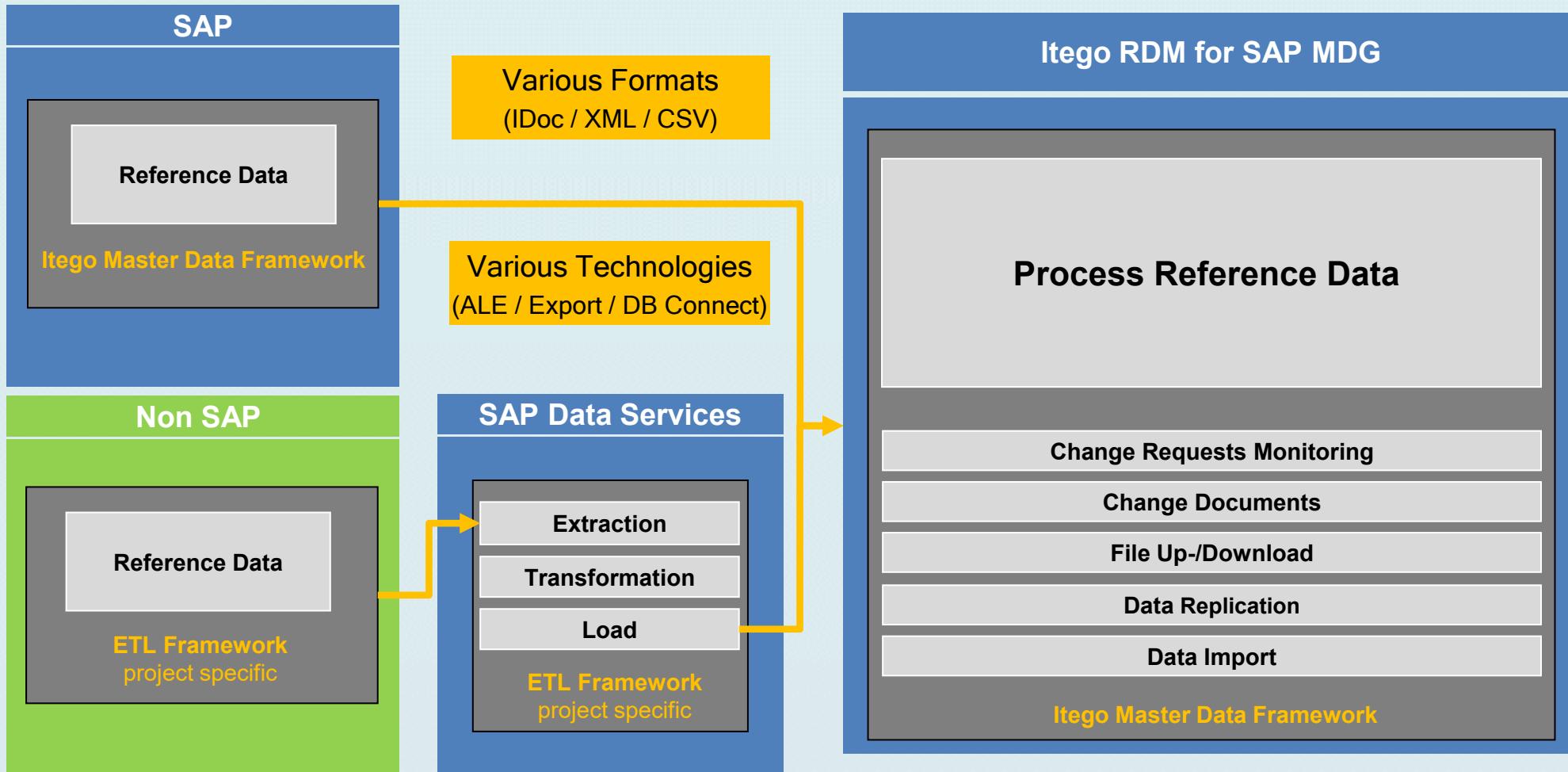
Itego Master Data Framework

Scenarios and Solution Components



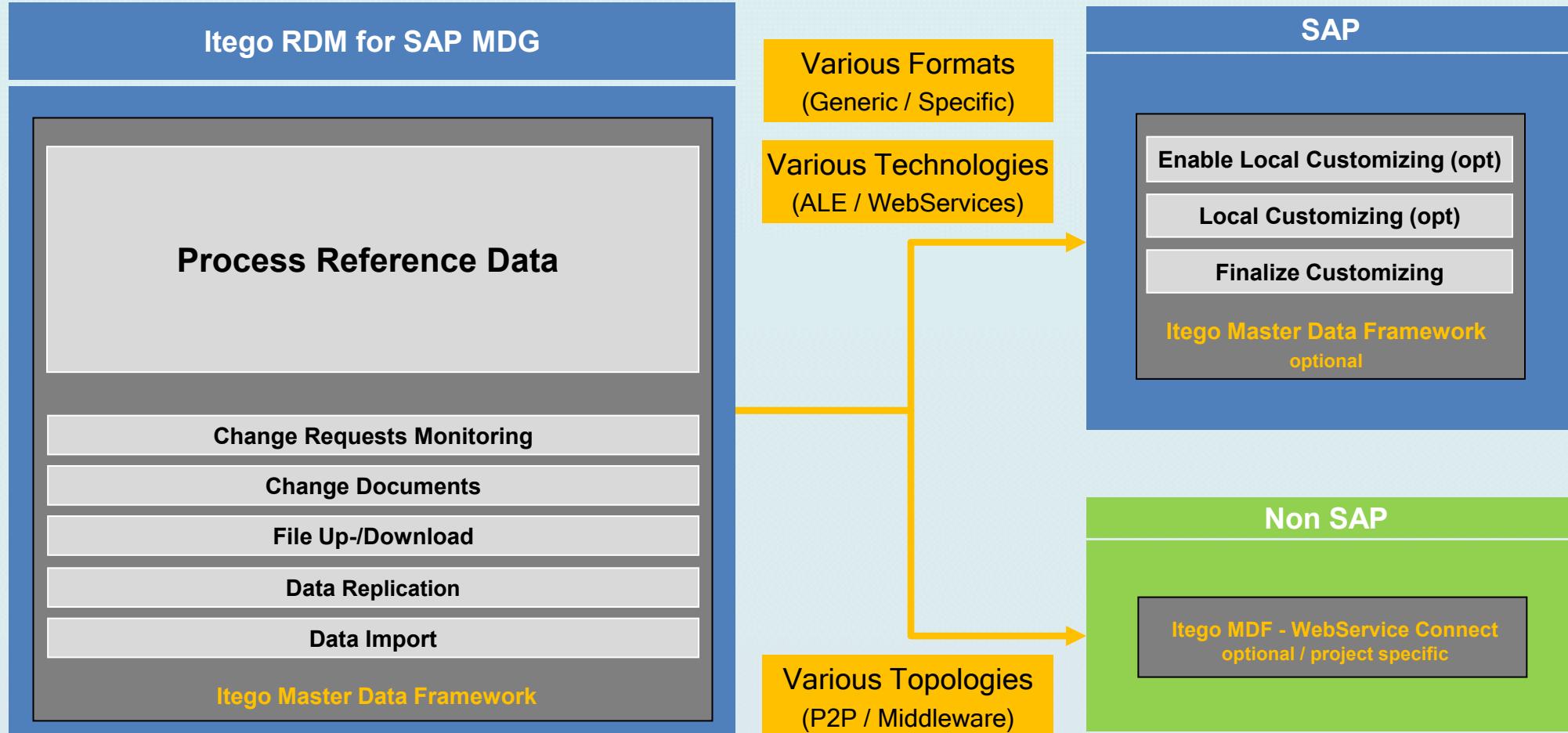
Itego Master Data Framework

Flexibility for Data Load



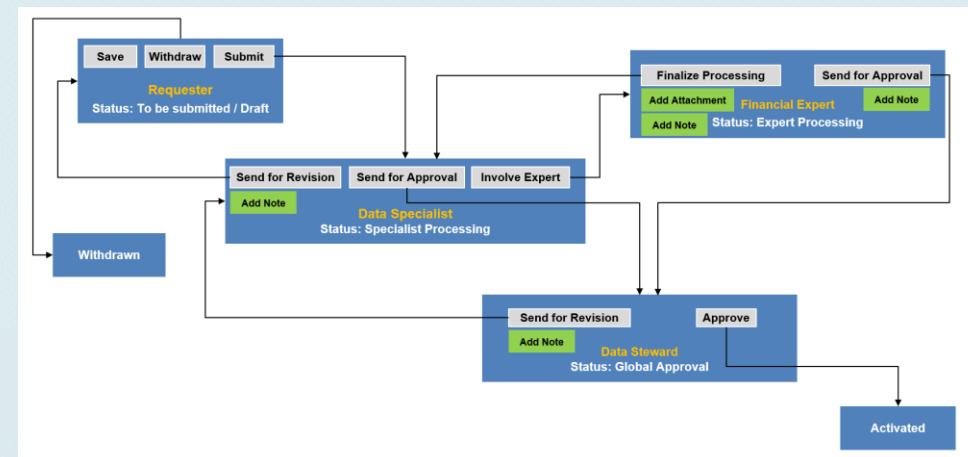
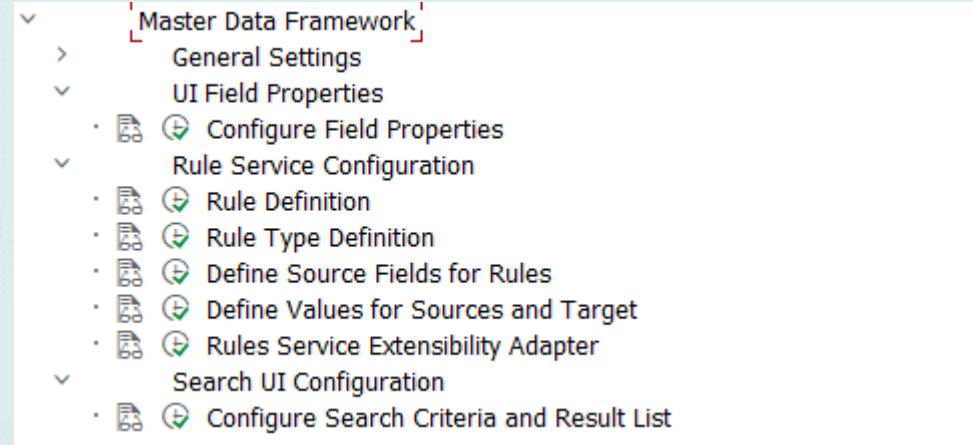
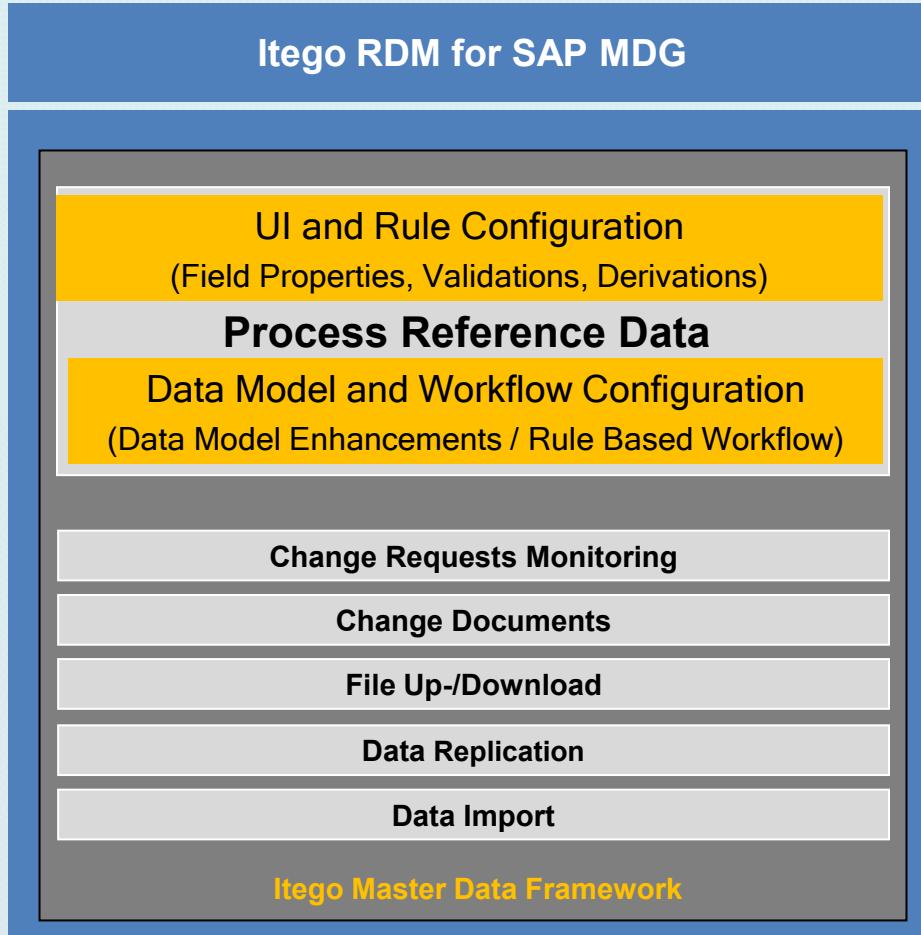
Itego Master Data Framework

Scalability for Data Replication



Itego Master Data Framework

Flexible Enhancements for Reference Data Processing



Itego Master Data Framework

Guided User Interface (UI) and Rule Configuration

- ▼ **Master Data Framework**
- General Settings
- ▼ UI Field Properties
 -   Configure Field Properties
- ▼ Rule Service Configuration
 -   Rule Definition
 -   Rule Type Definition
 -   Define Source Fields for Rules
 -   Define Values for Sources and Target
 -   Rules Service Extensibility Adapter
- ▼ Search UI Configuration
 -   Configure Search Criteria and Result List

User Interface (UI) Configuration
Maintenance UI: Field Properties

Rule Configuration
(Validations, Derivations)

User Interface (UI) Configuration
Search UI: Search Attributes and Result List

Itego Master Data Framework

Example 1: Company Code - User Interface Configuration

The image illustrates the configuration and application of UI Field Properties for the Company Code screen in the Itego Master Data Framework.

UI Field Properties Overview: The top right window shows the configuration of a field property for the "Company Code" field. The "Field Property" dropdown is set to "Required Field", highlighted with a green border. A yellow arrow points from this configuration to the "Company Code" screen.

Company Code Screen: The left window shows the "Company Code" screen with several fields. The "City" field is highlighted with a yellow box and labeled "Optional Field". A yellow arrow points from the "Required Field" configuration to this field.

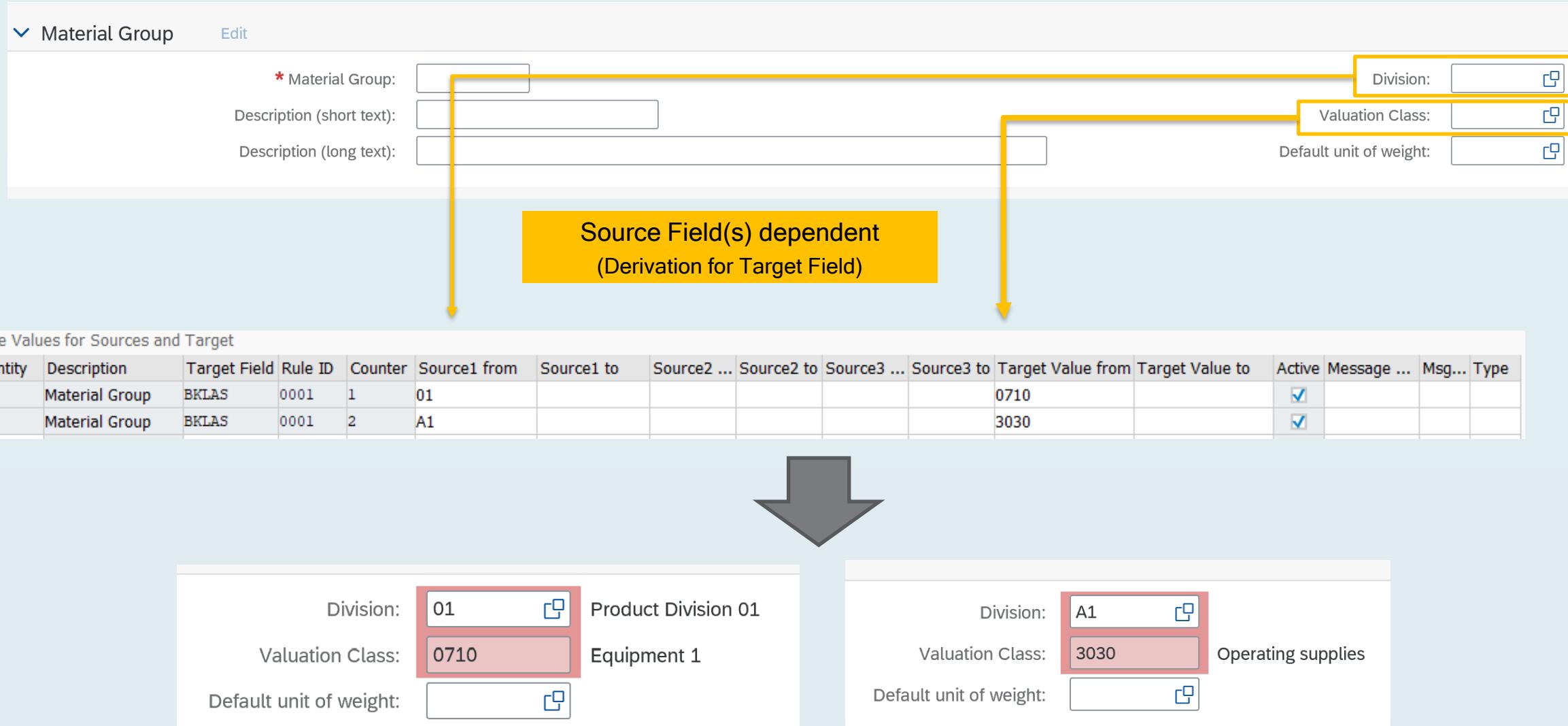
Validation Result: The middle window shows a validation message: "Maintain value for Mandatory Field "City"" with a red error icon, indicating that the "City" field is mandatory but has not been populated.

Final State: The bottom right window shows the final state of the Company Code screen after the field property was applied. The "City" field is now populated with "Berlin" and is highlighted with a yellow box, indicating it is no longer optional.

Model	Target Entity	Description	Target Field	CR Type	CR Step	Field Property	Active
I1	COMP CODE	Company Code	ORT01	*	*	Required Field	<input checked="" type="checkbox"/>

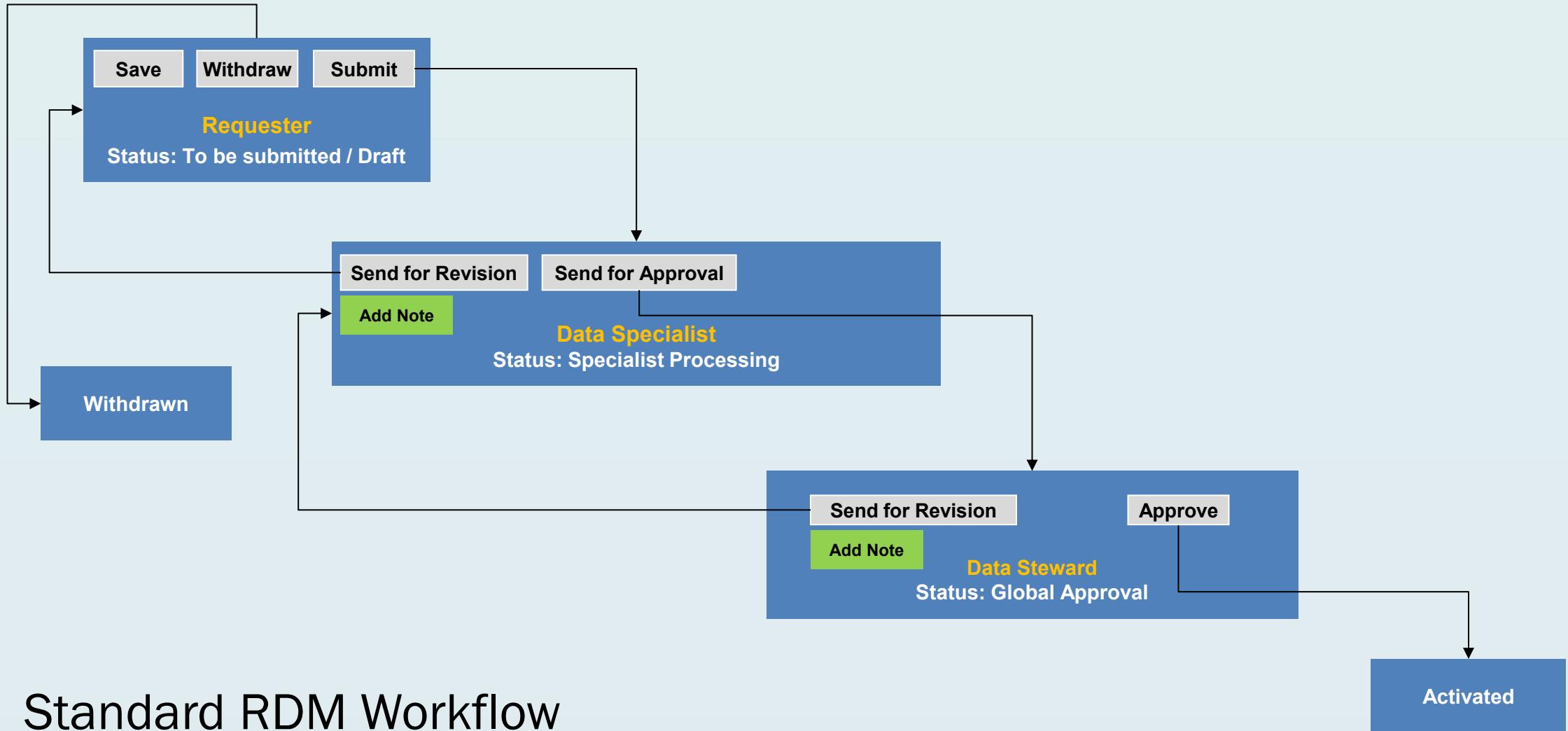
Itego Master Data Framework

Example 2: Rule Configuration - Derivation



Itego Master Data Framework & SAP MDG Appl. Framework

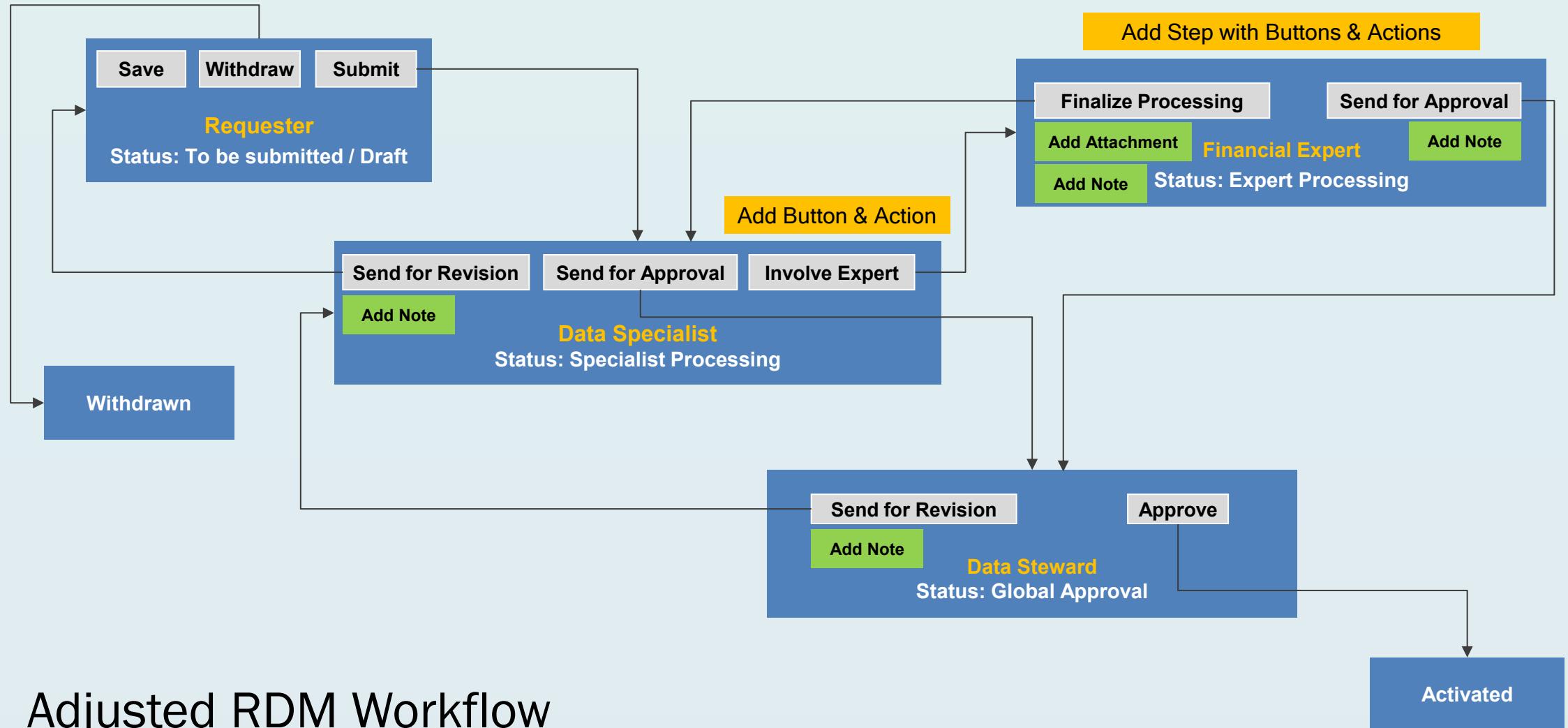
Workflow Configuration



Standard RDM Workflow

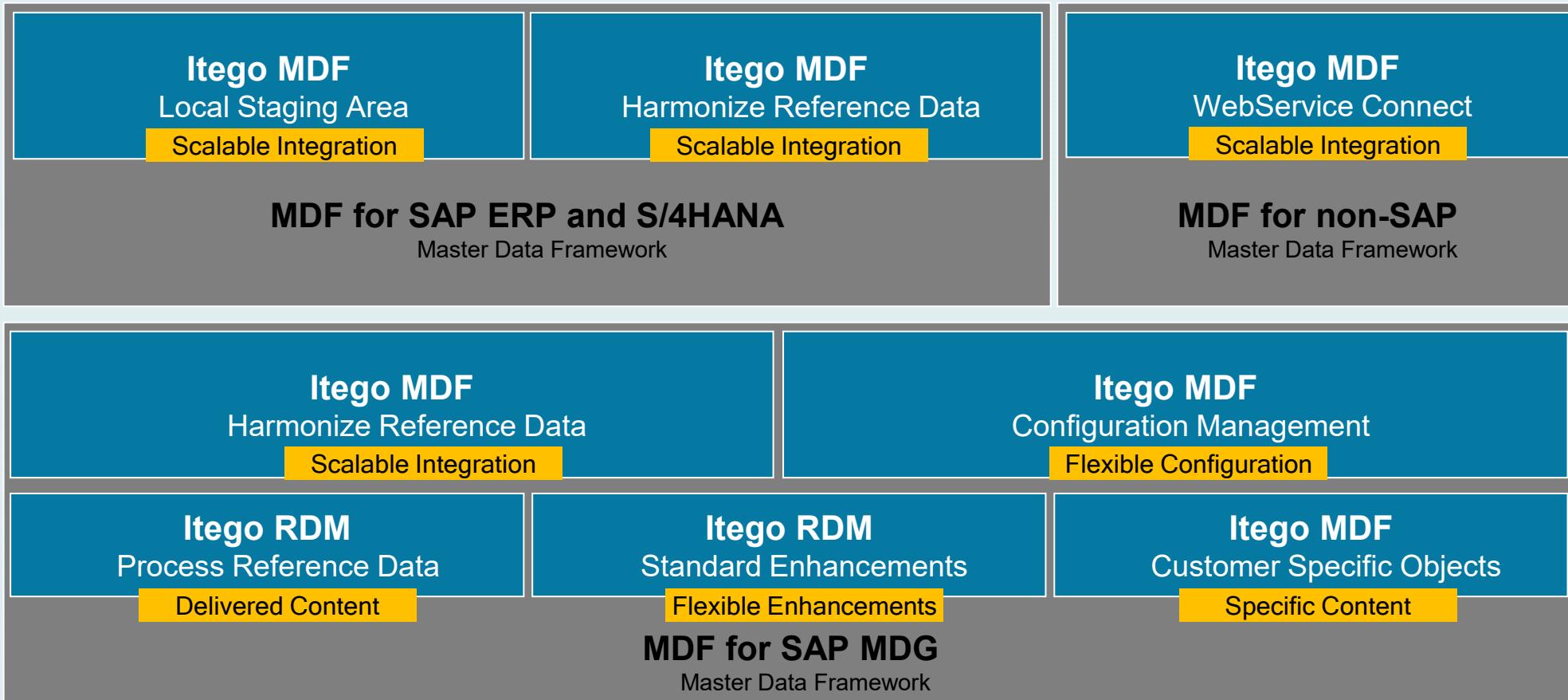
Itego Master Data Framework & SAP MDG Appl. Framework

Workflow Configuration



Itego Master Data Framework

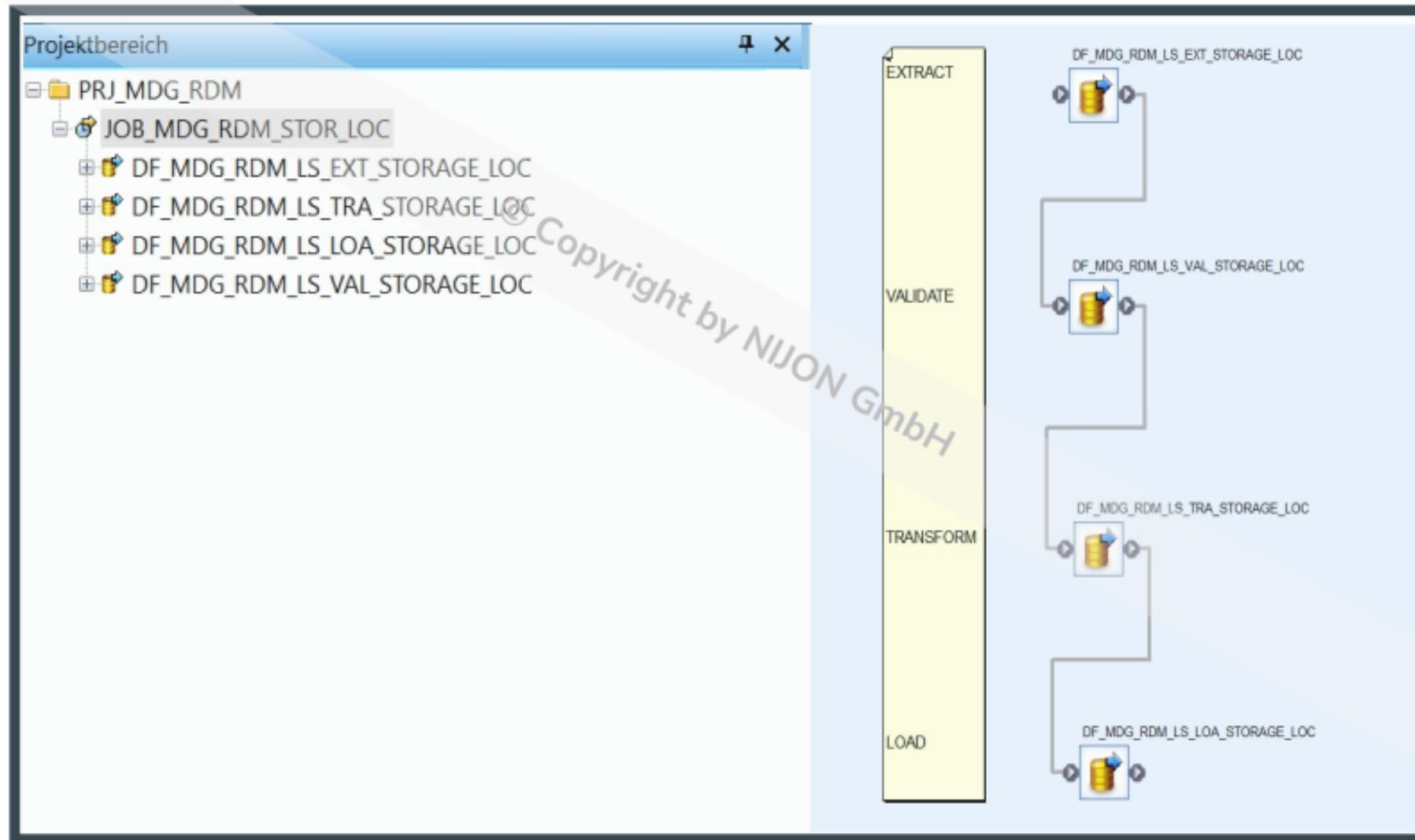
Summary



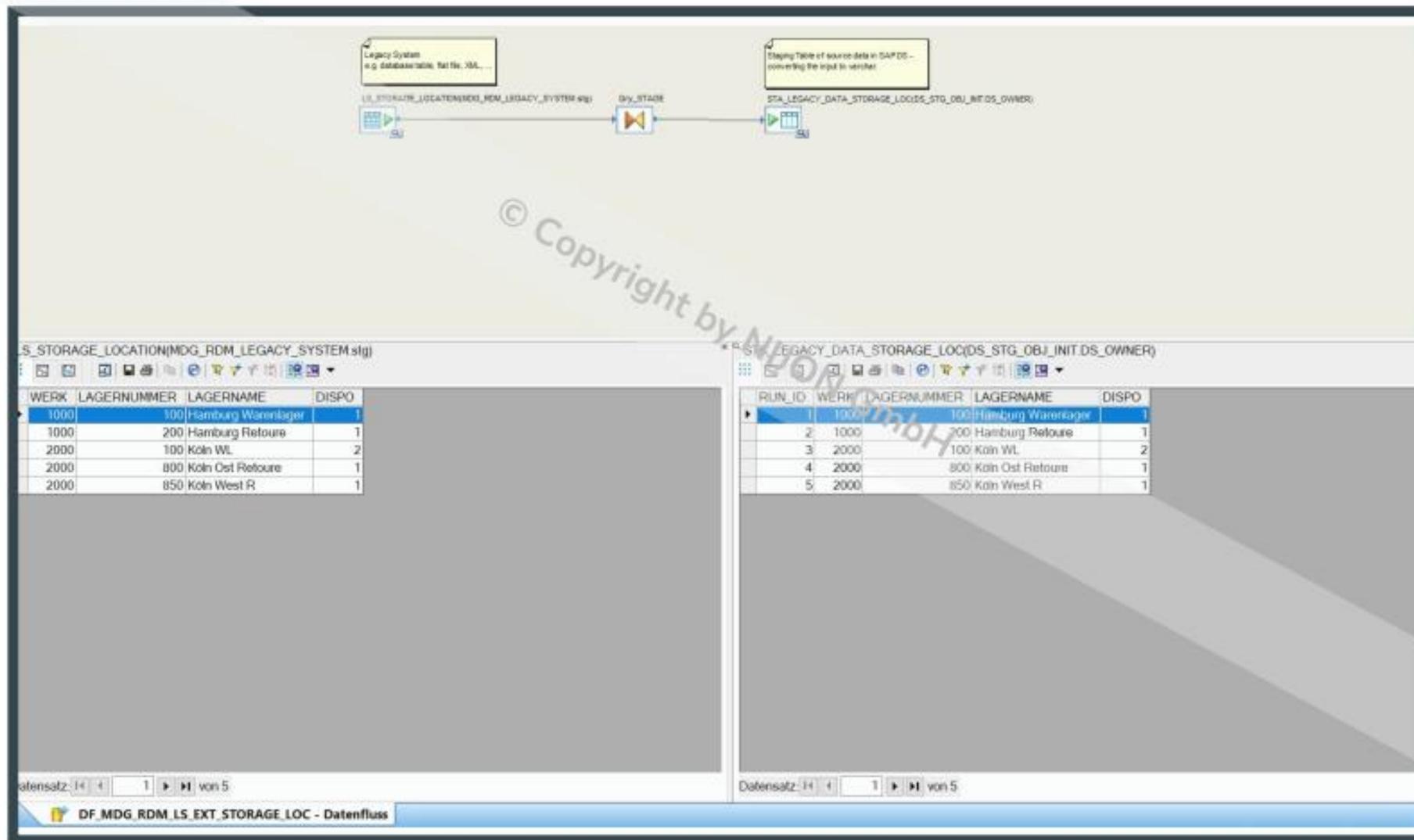
Enabling Itego
Deliver unmatched content
Deliver new content at unmatched rate / cost

Enabling Customers and Partners
Enhance and integrate with maximized flexibility
Grow MDG and RDM scope as needed

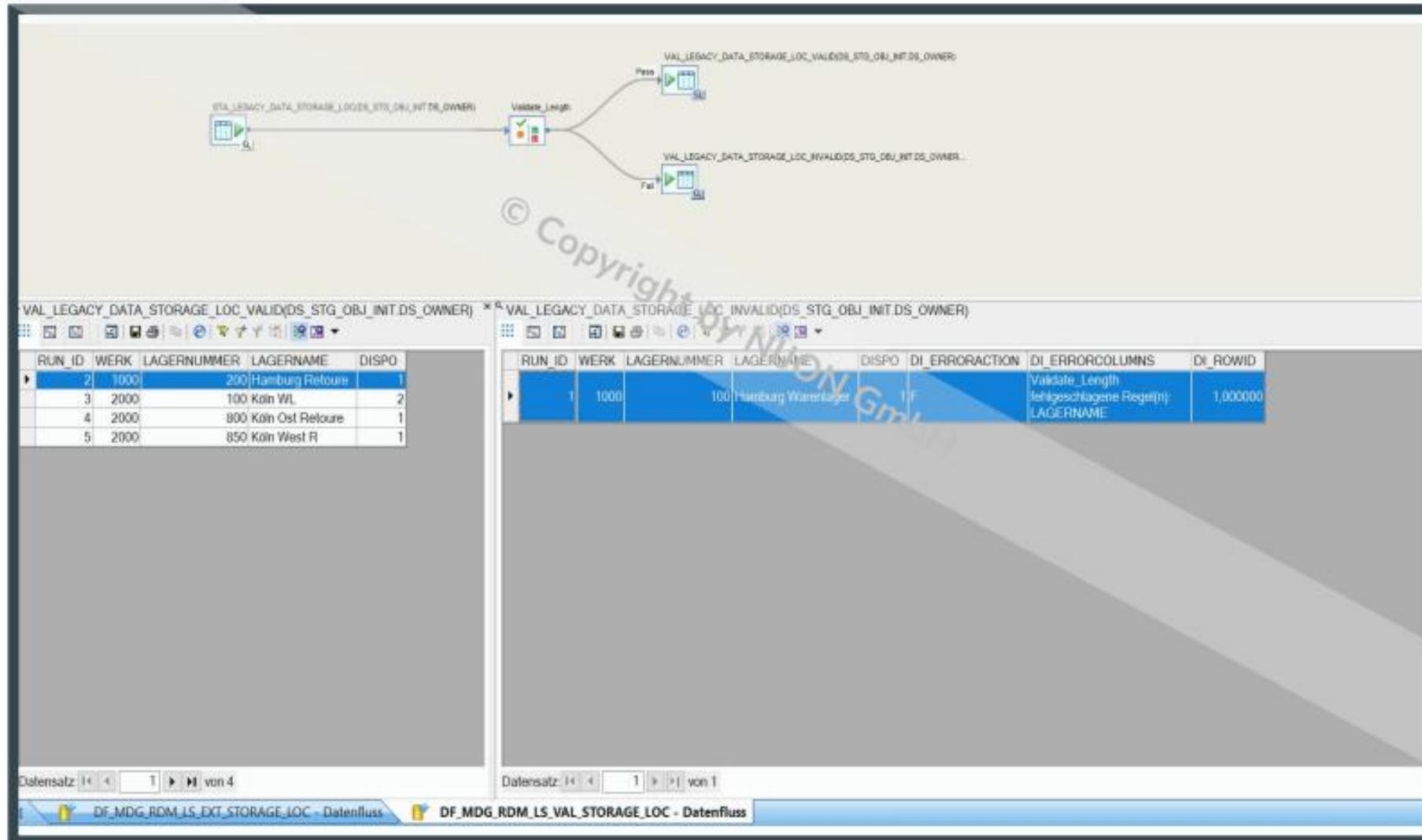
SAP DS: Initial Load Storage Location



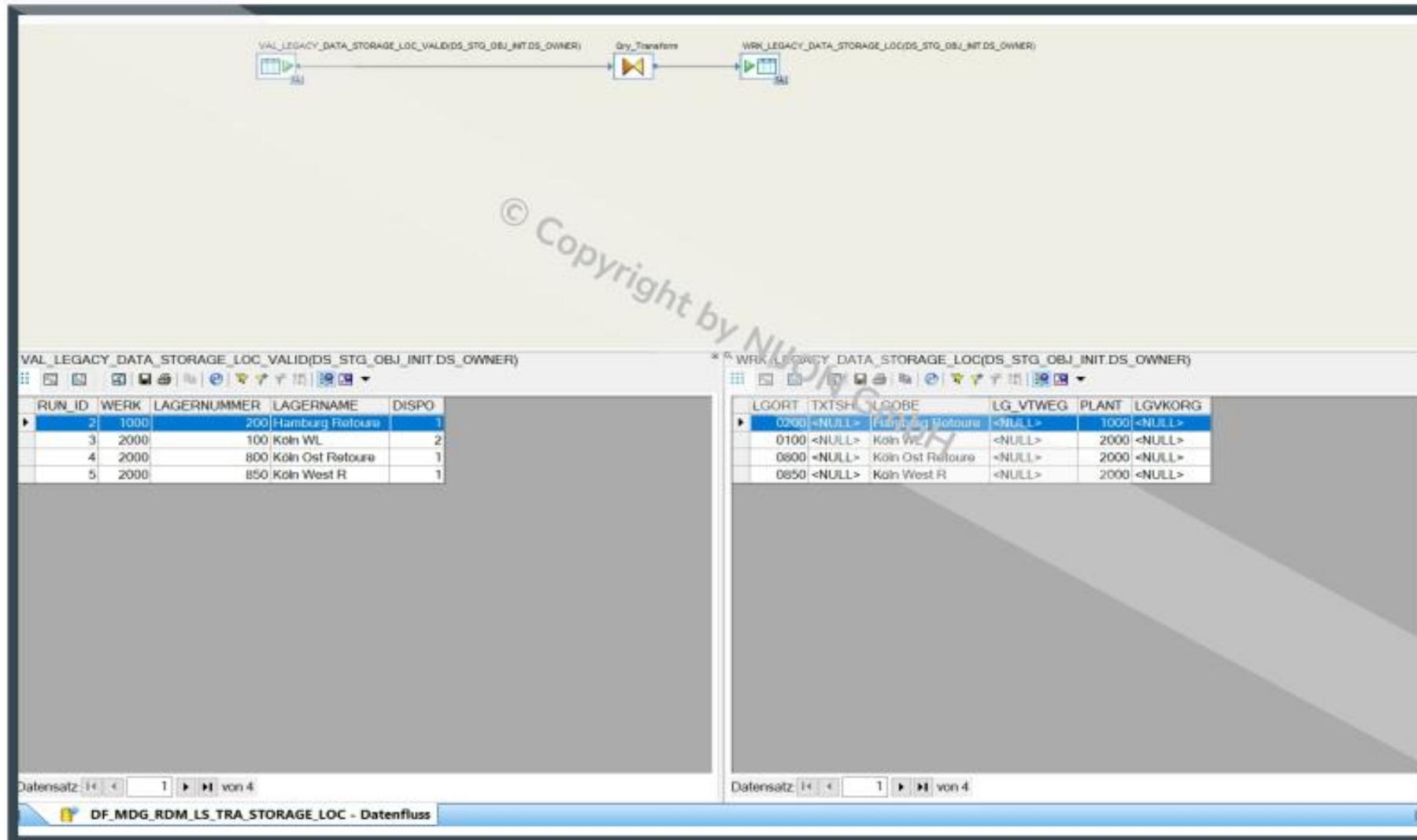
SAP DS: Extraction



SAP DS: Validation



SAP DS: Transformation



SAP DS: Loading

