

Mastering Materials Master Data Management

Mar 21, 2024

 Z MDM

Designed by

Cambrian Lab

Agenda

- Panelists
- Brief Intro
- Unique Challenges with Material Master Data
- Overcoming Material Master Data Challenges with Digital Workflows
- Demo
- Q&A

About Cambrian Lab

Mission: To Provide Effective and Practical Solutions for Supply Chain Excellence

Team

Supply Chain, New Product Development and Technology Experts from SAP, Samsung, Siemens, GM, Ford, Applied Materials

Industries

Automotive, High-tech, Semiconductor Equipment, Medical Devices, Consumer Products

Locations

SF Bay Area, Detroit, Boston, Houston

Expertise

- New Product Introduction, Supplier Development, Quality Management, and Master Data Management
- Enterprise and Supply Chain Technology (ERP, SCM, Manufacturing, CRM, Sourcing, Finance)

Panelists

Kris Gorrepati

Product Management

Cambrian Lab

Manish Mathur

VP of Engineering

Cambrian Lab

Sampling of our work in Materials Master Data Management

Memory and HPC Computing Systems Manufacturer

NPI Engineering, Master Data Management (Materials, BOM, AVL/AML)

Global Industrial Manufacturer

Master Data Management (Materials, NPI - Finished Goods, HAWA..)

Tier 1 Global Automotive Supplier

NPI Product Release, Materials, BOM

Global CPG Company

Master Data Management (Materials, Costing, Specification, Data Quality Workflows)

Specialty Chemicals Leader

Master Data Management (R&D Materials, Finished Goods, Customers, Suppliers)

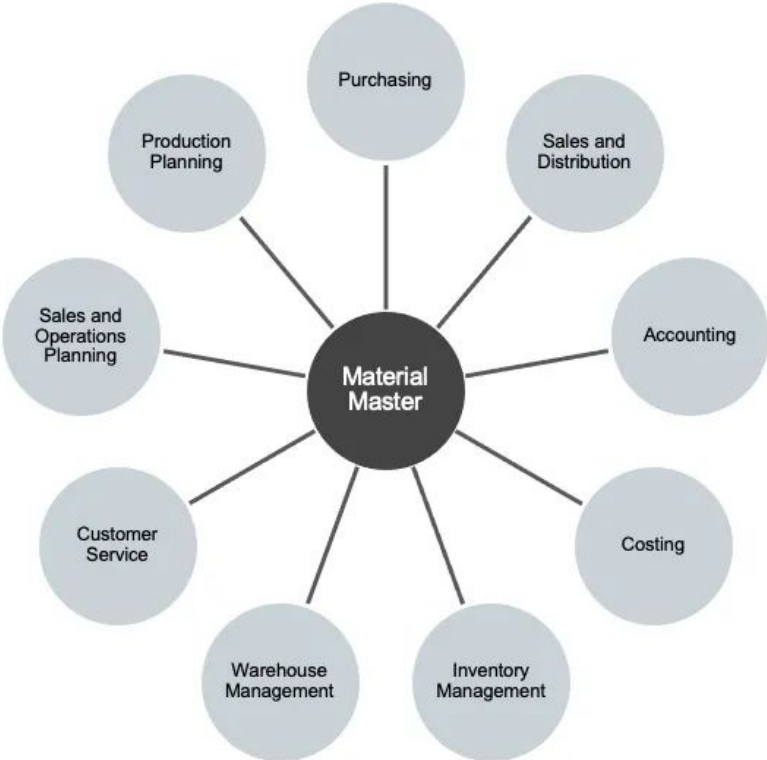
Food and Beverage Leader

Finished Good/Ingredient Material Request, FG/Ingredient Material Creation, Extensions, Quality Inspections

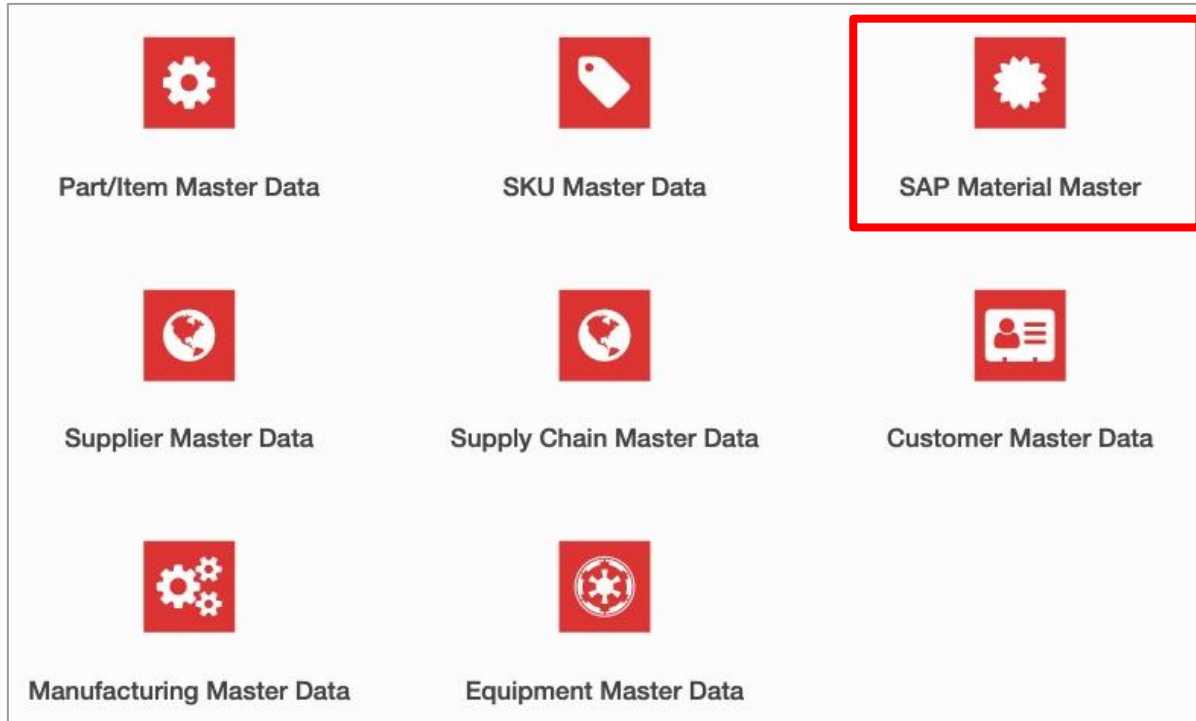
Paper and Pulp Industry Leader

Finished Goods Material Request and Setup

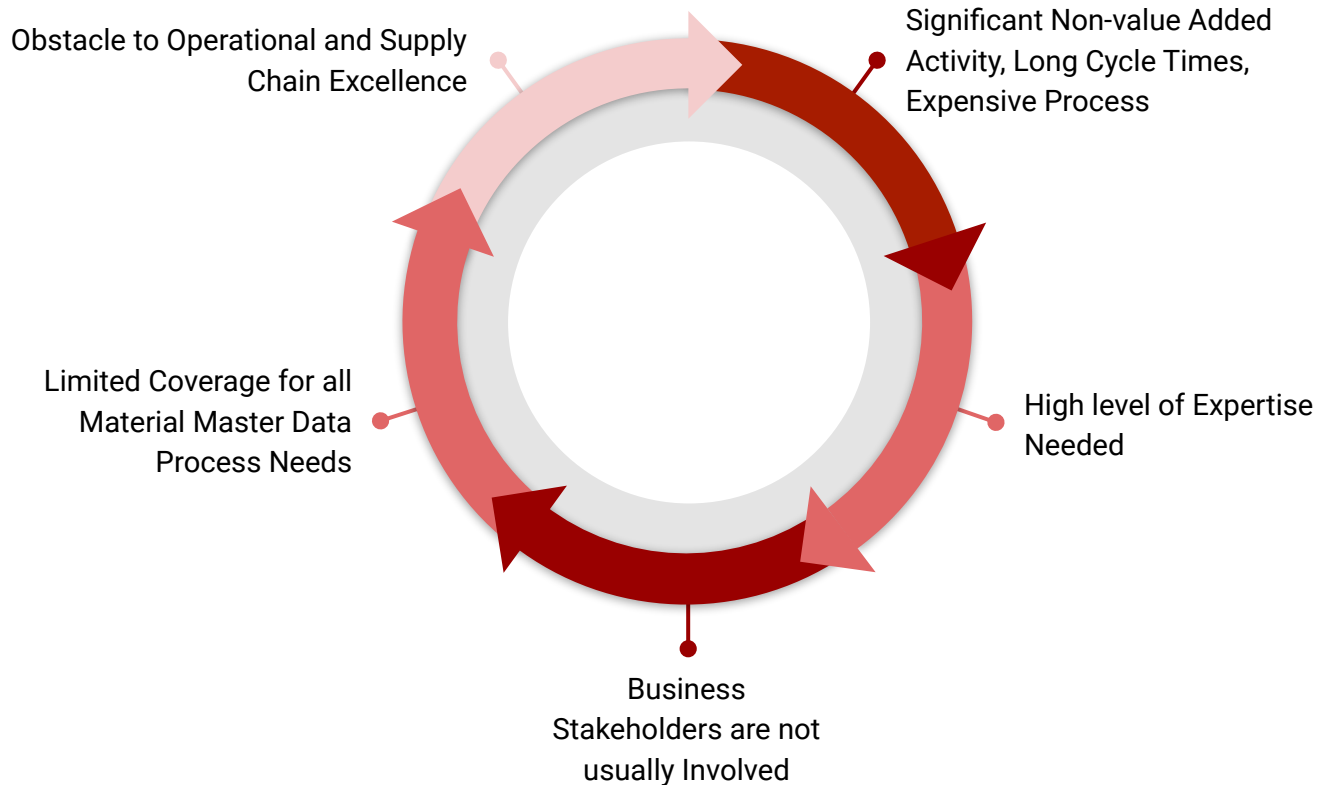
Material Master is Central to Business and Operational Excellence



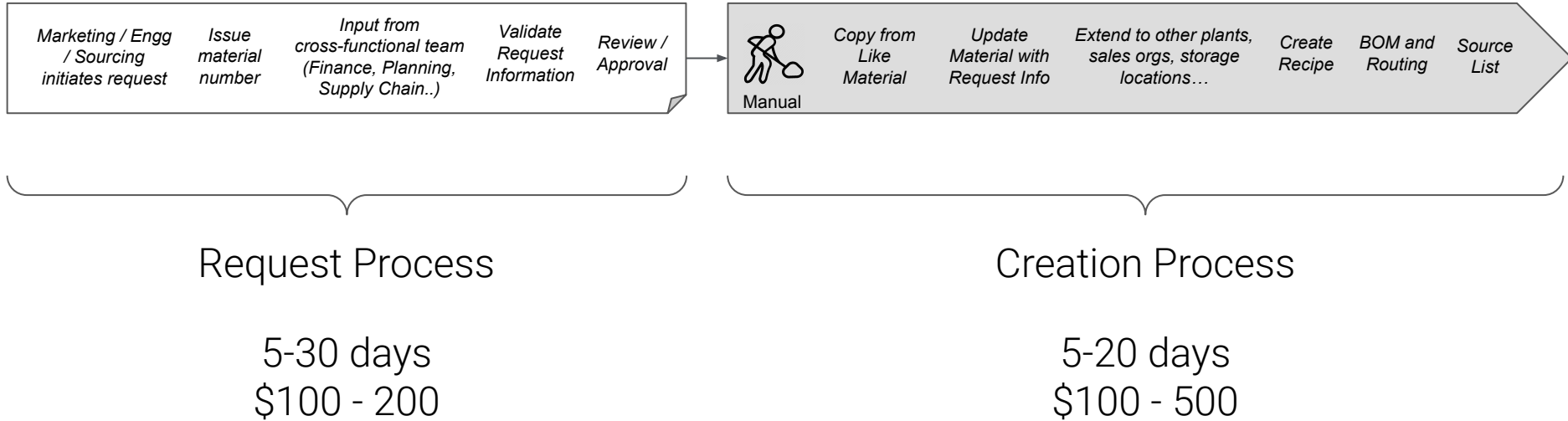
Material Master Data Requires Special Attention Because of Importance and Intricacies



What we observed about Material Master Data Management



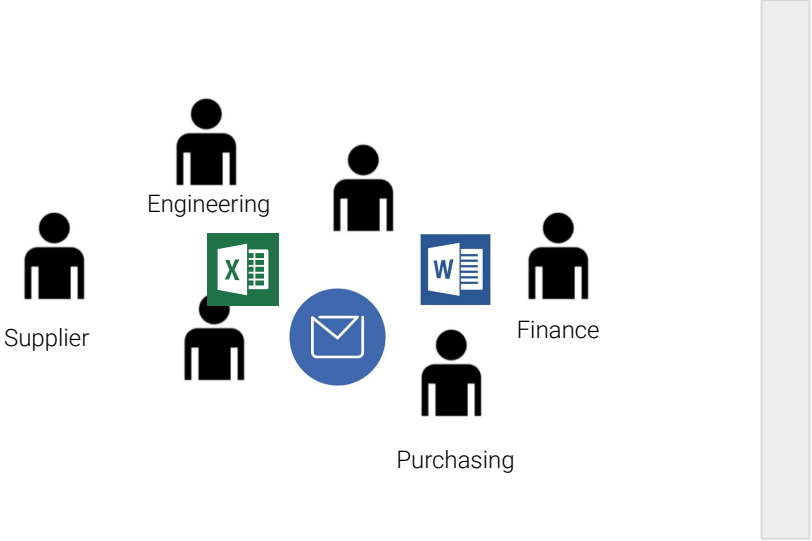
Time-consuming and Expensive Process



Material Master Data Process Costs Add Up

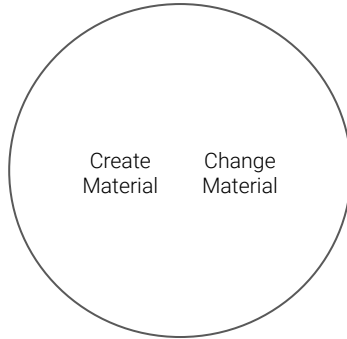
Master Data Process	Master Data Domain	Annual Number	Current Process Cost	Total Annual Cost
New Material Creation	Material Master	1,000	250	250,000
Extending Materials	Material Master	5,000	120	600,000
New Part Request	Material Master	1,500	50	75,000
New Pricing	Material Master	5,000	25	125,000
Pricing Change	Material Master	10,000	10	100,000
Bill of Material	Material Master	200	150	30,000
Bill of Material Change	Material Master	800	75	60,000
Routing	Material Master	200	150	30,000
Approved Supplier	Material Master	600	40	24,000
Purchase Info Record	Material Master	600	25	15,000
Approved Supplier Changes	Material Master	1,200	40	48,000
Purchase Info Record Changes	Material Master	1,400	25	35,000
Approved Manufacturer	Material Master	1,800	25	45,000
Component Change	Material Master	2,200	20	44,000
Component End-of-life	Material Master	800	75	60,000
Product End-of-life	Material Master	200	150	30,000
Quality Planning Info	Material Master	1,200	45	54,000
...				
New SKU	SKU	200	150	30,000
SKU Submission to Amazon	SKU	300	50	15,000
SKU Changes	SKU	600	40	24,000
..				
New Supplier Request	Supplier	800	60	48,000
New Supplier Creation	Supplier	600	120	72,000
Supplier Blocking/Unblocking	Supplier	600	25	15,000
Supplier Info Change	Supplier	1,200	40	48,000
...				
New Customer Onboarding	Customer	600	120	72,000
..				
New Equipment Install	Equipment	400	80	32,000
Equipment BOM	Equipment	200	50	10,000
Total Master Data Process Cost				1,991,000

Business Users are out of the Loop

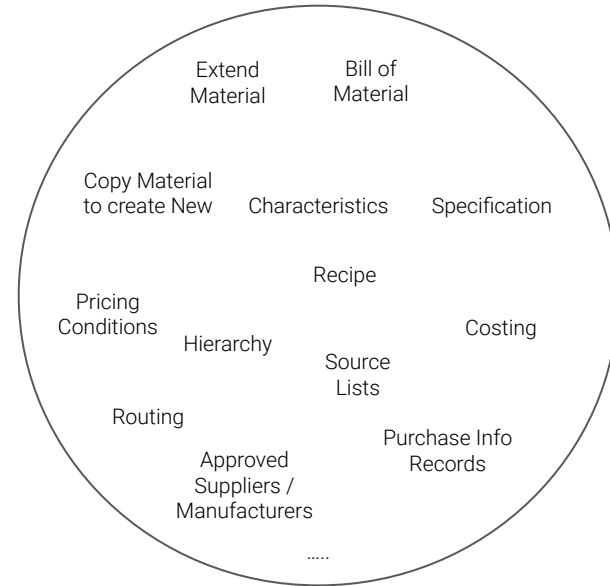


MDG
SAP S/4HANA
SAP APO
SAP ECC
ETL/LSMW

Many Unsupported Master Data elements and scenarios with Traditional Approaches



Supported by Traditional Approaches



Unsupported

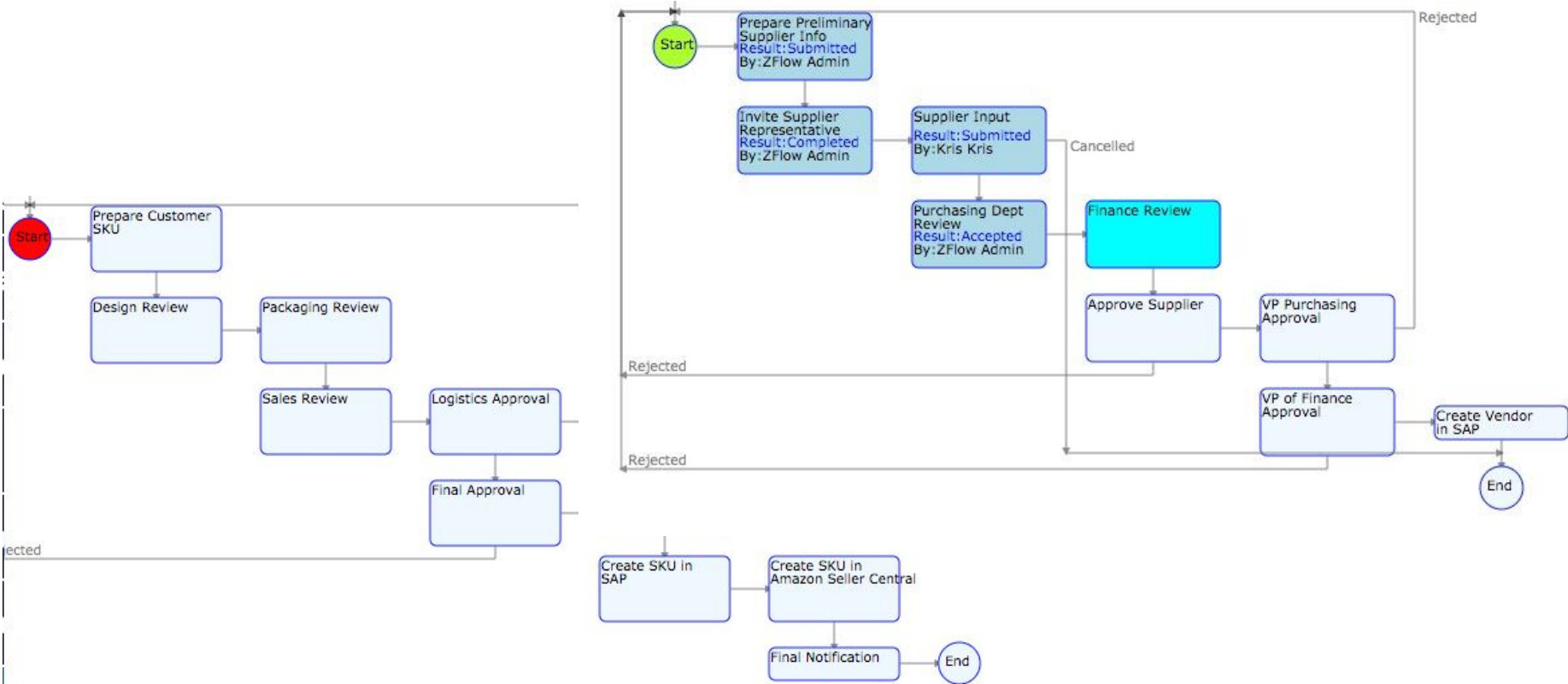
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How to Approach Material Master Data Management



Material Master Data Management Should Reflect and Support the Business Process



Data Governance and Validation at the Input Source

Error proofing (Poka Yoke)

The screenshot shows a web application interface with a validation error message. The message box, titled "INFO : Following fields cannot be blank:", lists the following fields: Company Code, Tax Exempt, Street Address 1, Industry Code, and Primary Sales Rep. The error message is displayed over a form that includes a "Submit" button and a "Cancel" button. The form also contains a "Current Activity" section with a "Provide Ship To Same As Sold To" message, a "Tax Exempt*" dropdown menu, a "Real Ship To:" dropdown menu, a "Prospect Customer Number:" text input field containing "CLAB001", a "Customer Notes*" text area containing "This is a new customer", an "Urgent Request*" dropdown menu set to "No", an "Entity Region:" dropdown menu set to "NA", a "DIGITAL:" checkbox, and a "Customer Information" section with fields for "Name 1*", "Street Address 1*", "Street Address 2:", and "City:".

INFO : Following fields cannot be blank:
Company Code
, Tax Exempt
, Street Address 1
, Industry Code
, Primary Sales Rep

OK

Current Activity: Provide Ship To Same As Sold To (started)

Submit Cancel

Activity Comment

Instructions: Please enter data in the form below and save or add files to the process then click to continue process

Tax Exempt*: <- Select ->

Real Ship To: Yes

Prospect Customer Number: CLAB001

Customer Notes*: This is a new customer

Urgent Request*: No

Entity Region: NA

DIGITAL:

Customer Information

Name 1*: CLab

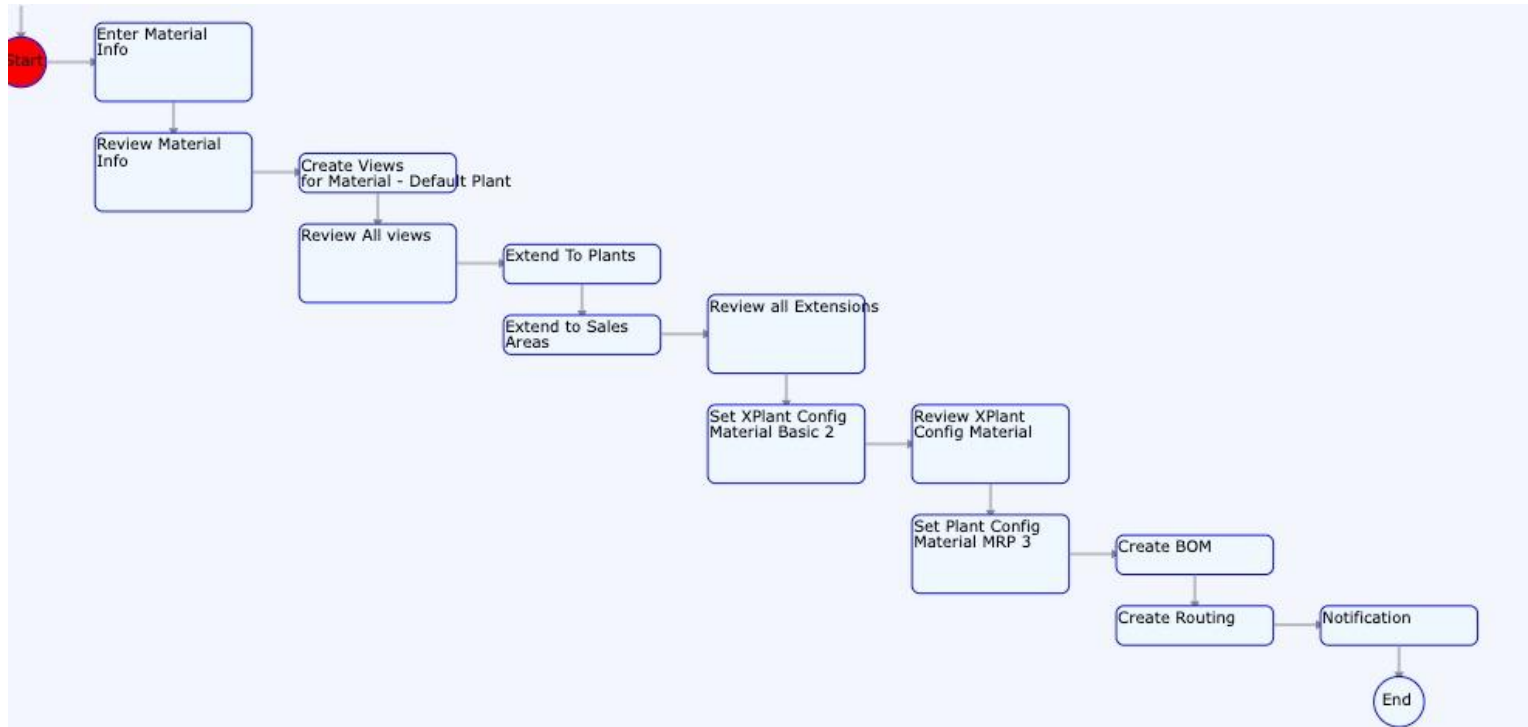
Street Address 1*: [Redacted]

Street Address 2: [Redacted]

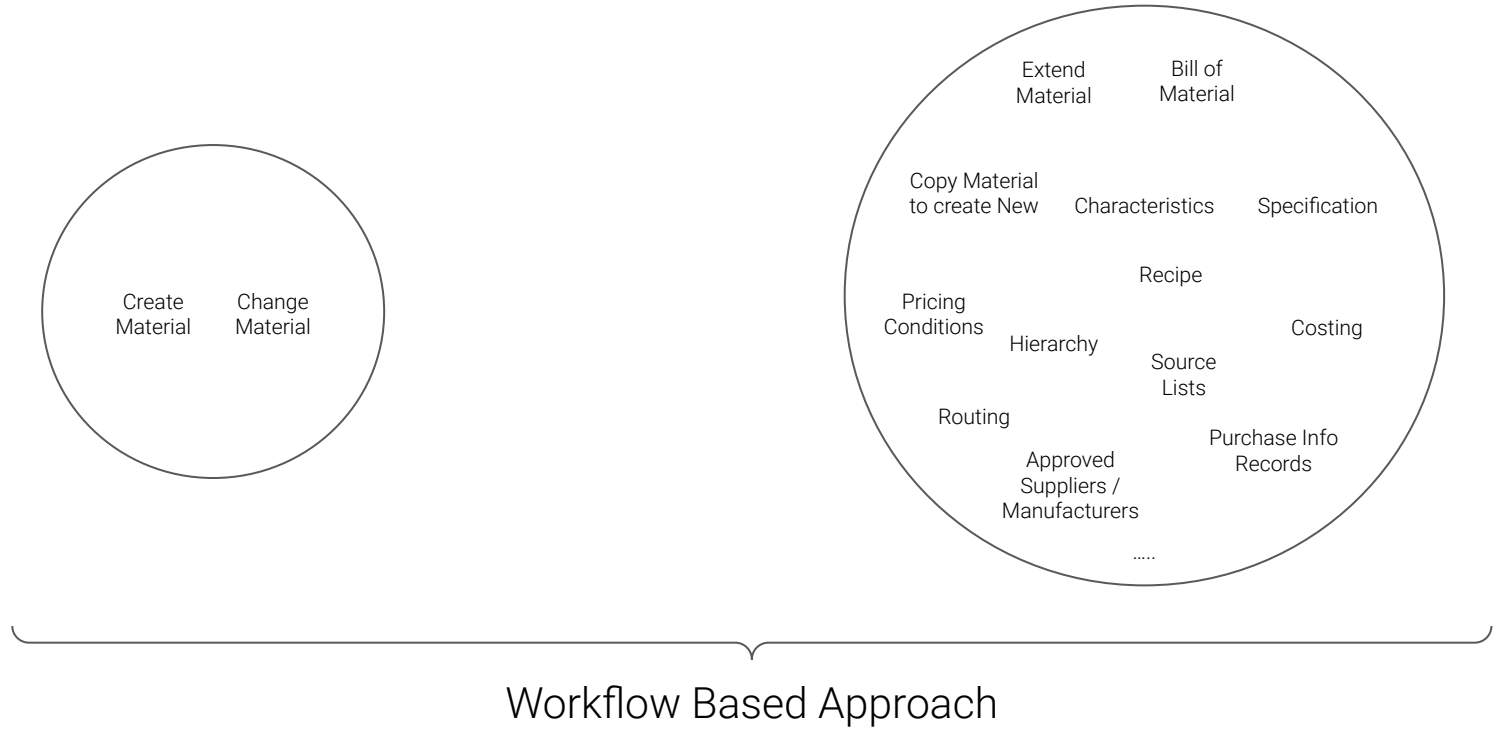
City*: Pleasanton

Delete Items Save Changes Reset Form Show Comments

Seamless Integration and Automation as part of Workflows to Reduce Cycle Time and Process Costs



Support for All Material Master Data Elements and Scenarios



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Demo

End-to-end Scenario
(Request and
Creation)

Handling Multiple
Materials

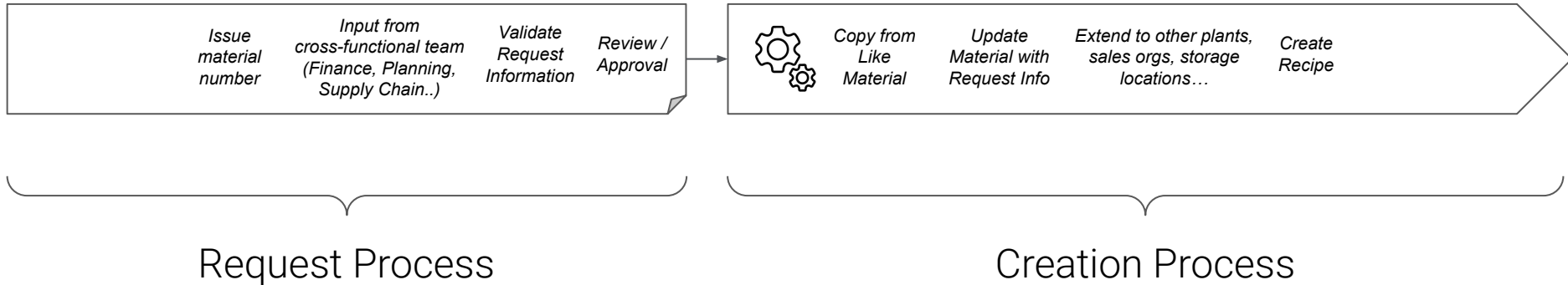
Different
Workflows for
Different Types of
Materials,
Businesses,
Regions..

Connecting PLM
Systems and SAP
with Digital
Workflows for
Material Master
Data

End-to-End Scenario

Cross-functional workflow

*Marketing / Engg
/ Sourcing
initiates request*



Request Process

Creation Process

Demo

End-to-end Scenario
(Request and
Creation)

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Different
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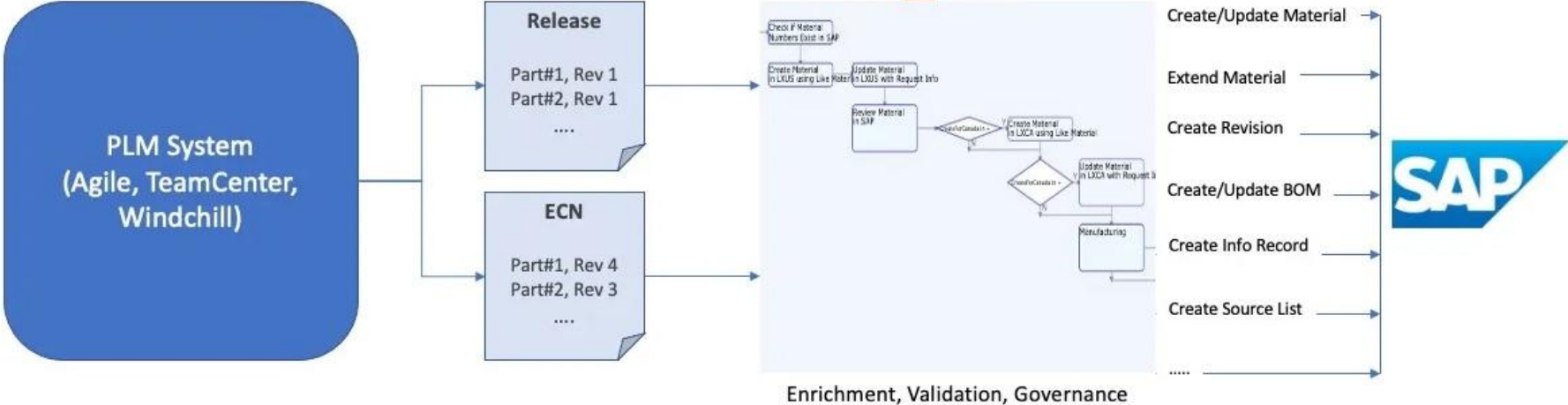
End-to-end Scenario
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Handling Multiple
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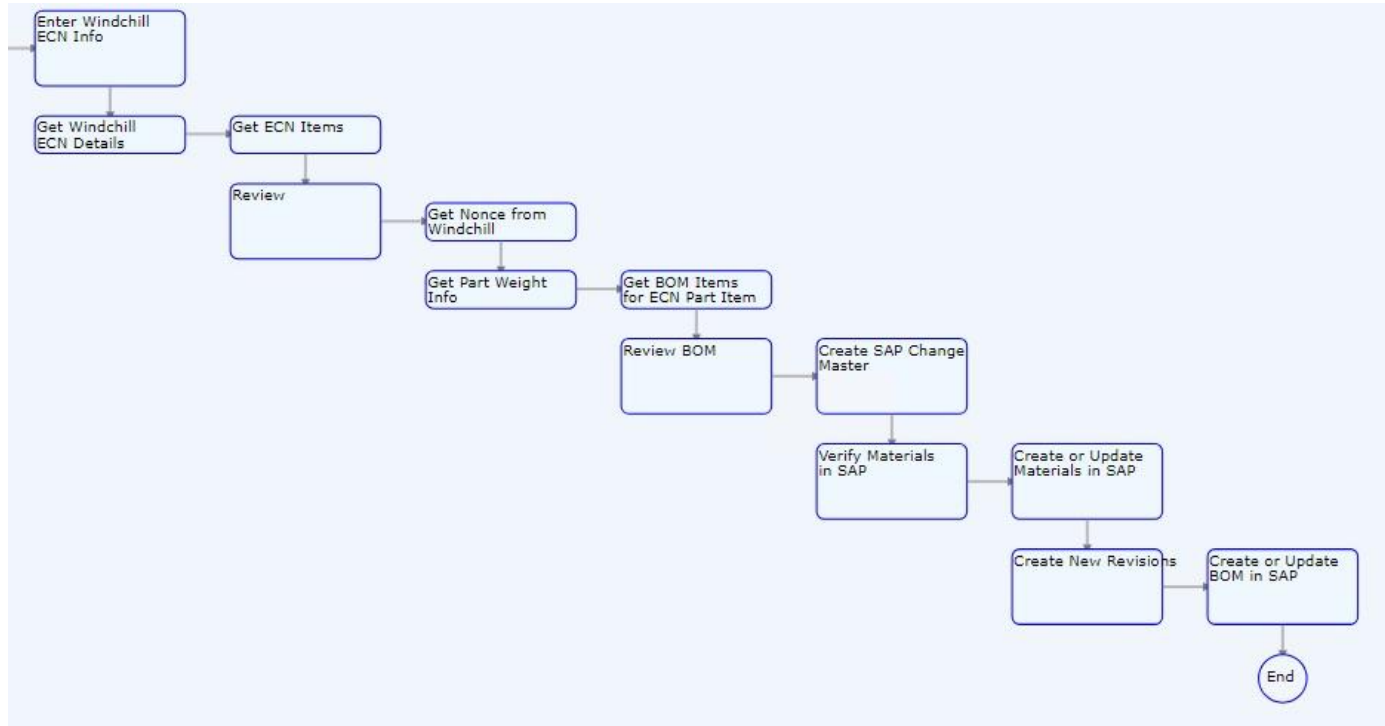
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Connecting PLM
Systems and SAP
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Material Master
Data

PLM Systems and SAP



Example - Integration Between Windchill and SAP using Workflows



ECN Items

The screenshot displays a list of 15 ECN items in a table format. Each row represents an item with a unique ID (3-17) and a description. The descriptions are partially obscured by a watermark. The items are categorized as either '2D Document' or 'Part'. Below the table is a toolbar with 12 icons and their corresponding labels: Stop Process, Save Changes, Delete Items, Rename, Reset Form, Email Status, Export Excel, Close Process, Copy, Process Link, and Tree View.

ID	Description	Category
3	OR:wt.doc.WTDocument: [redacted]	2D Document
4	OR:wt.doc.WTDocument: [redacted]	2D Document
5	OR:wt.doc.WTDocument: [redacted]	2D Document
6	OR:wt.doc.WTDocument: [redacted]	2D Document
7	OR:wt.doc.WTDocument: [redacted]	2D Document
8	OR:wt.doc.WTDocument: [redacted]	2D Document
9	OR:wt.doc.WTDocument: [redacted]	2D Document
10	OR:wt.part.WTPart: [redacted]	Part
11	OR:wt.part.WTPart: [redacted]	Part
12	OR:wt.part.WTPart: [redacted]	Part
13	OR:wt.part.WTPart: [redacted]	Part
14	OR:wt.part.WTPart: [redacted]	Part
15	OR:wt.part.WTPart: [redacted]	Part
16	OR:wt.part.WTPart: [redacted]	Part
17	OR:wt.part.WTPart: [redacted]	Part

Toolbar:

- Stop Process
- Save Changes
- Delete Items
- Rename
- Reset Form
- Email Status
- Export Excel
- Close Process
- Copy
- Process Link
- Tree View

BOMs of ECN Items (Windchill Parts)

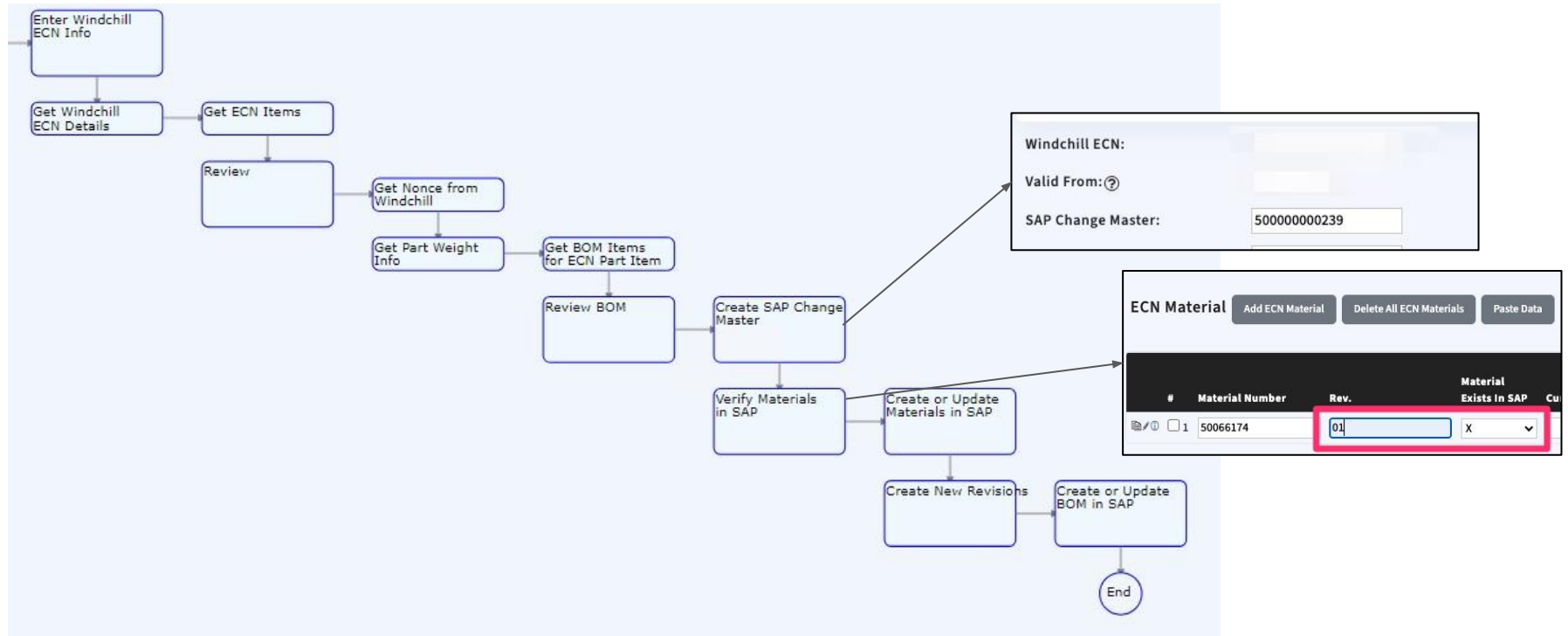
ECN Item Windchill ID: OR:wt.part.WTPar...334 Object Number: 100 Object Name: FOF

Type: Part Weight: Weight UOM:

ECN Part BOM Component Add ECN Part BOM Component Delete All ECN Part BOM Components Paste Data

#	Part Windchill ID	Part Number	Quantity	Quantity UOM
<input type="checkbox"/>	1	100...	1.00	ea
<input type="checkbox"/>	2	100...	1.00	ea
<input type="checkbox"/>	3	100...	1.00	ea

Creating/Updating Materials and BOMs in SAP



Advantage of Digital Workflow Based Master Data Processes

Effective and Seamless
Master Data Workflows

Involves *Right People at the
Right Time*

Out-of-the-box Integration to
ERP, CRM, E-commerce, PLM,
Supply Chain, Manufacturing
Systems



Supply Chain Ready

Build your own workflows with
easy-to-use workflow designer

Support for Many Master
Data Domains and
Elements

Support for Different Languages, Types, Plants, Divisions...

Pad de lancement Administration Maintenance des données Dépôt Rapports Rechercher ZFlow Admin

New Material Test - NMCT00001

Processus Info **Activité actuel** Les données Membres Les rôles Flux de travail Journal Graphique Le communiqué

Activité actuel: Review SAP Material (Statut d'activité: Activity commencé) Vous êtes un interprète Interprètes: ZFlow Admin

Accepter

Activity Comment

Numéro du matériel: 123457

Material Description: Test Material from ZFlow

Type de matériel: ZF01

Material Group: CS

Base UOM: AKG

Netweight: 66.00

Le document

Nom	Description	Type de fichier	Taille du fichier	Date
No attachments found				

Statut d'approbation:

pas	Nom	Résultat	date d'achèvement	Commentaires
Start	ZFlow Admin	Terminé	2022/01/15 0:00:00	
New Material Info	ZFlow Admin	Présenta	2022/01/15 0:00:00	
Review	ZFlow Admin	Accepté	2022/01/15 0:00:00	

Enregistrer le formulaire Formulaire de réinitialisation Ajouter des fichiers Show Comments

Launch Pad for Administrator

New Material Request

- Pre NPI Multiple Material Request
List | Find | Insights | New
- Pre NPI Single Material Request
List | Find | Insights | New

Materials Master Data Management

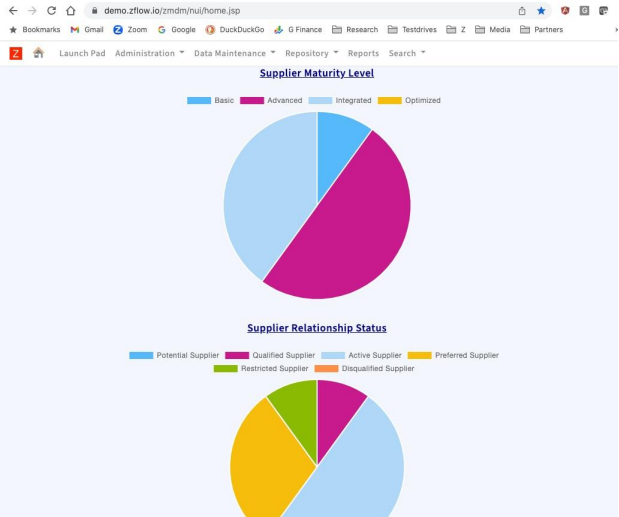
- NPI Process for ERSA Materials
List | Find | Insights | New
- NPI Process for Finished Goods
List | Find | Insights | New
- NPI Process for HAWA Materials
List | Find | Insights | New

Customer Master Data Management

- Create Customer - EMEA
List | Find | Insights
- Create Customer - N. America
List | Find | Insights
- SAP Customer Master
List | Find | Insights

Reporting and Analytics

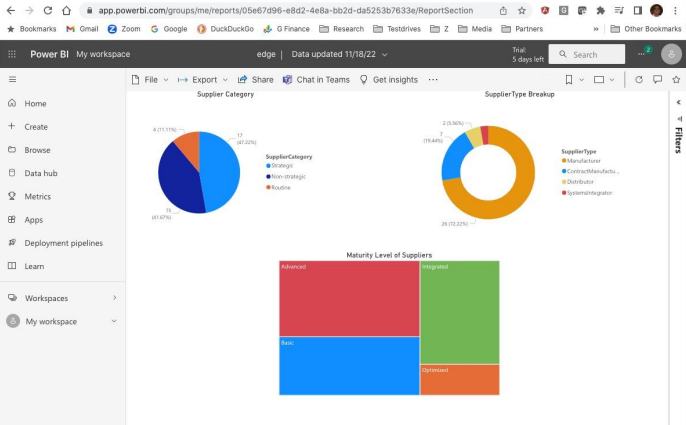
Embedded



Internal Reporting Framework

The screenshot shows a web application interface with a navigation menu. The menu items are: Reports, General, User, MPN Reports, BOM Reports, Other Reports, Data Inconsistency Reports, Blank MPN-Search, Parts with Duplicate MPNs, Parts with Same MPN and Different Purchased Parts - No MPNs, Data Extracts, Cycle Time Reports, Deviations, and EOL DB Reports.

Connect with PowerBI/Tableau



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Digital Workflow based Materials Master Data Processes

- ❑ *Eliminates non-value added work, shortens cycle time, and decreases process cost*
- ❑ Easy to adopt and loved by users
- ❑ Proven success in many industries

Free Trial

Free Pilot

Contacts

Kris Gorrepati

Cambrian Lab

+1-408-569-3744

Kris.gorrepati@cambrianlab.net