# Master Data Management for Supply Chain Excellence

April 17, 2025

Cambrian Lab



# Agenda

- Panelists
- Brief Intro
- Master Data and the Supply Chain
- Getting Started with Supply Chain Master Data Excellence
- Building the Business Case for Master Data Process Improvement
- Supply Chain Master Data Requires End-to-End Processes
- Pursuit of Perfect Master Data
- Validating the Business Case
- Q&A



## **Zoom Logistics**



Recording and Presentation will be sent after the session is completed



#### Panelists

Kris Gorrepati VP of Customer Success Manish Mathur VP of Engineering Justin Williams Master Data Solution Enablement Manager

Cambrian Lab

Cambrian Lab

**Edgewell Personal Care** 

4



## 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, Food and Beverage, Chemicals...

#### Locations

SF Bay Area, Detroit, Houston

#### Expertise

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



# Sampling of our work in Master Data Management Excellence

#### 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

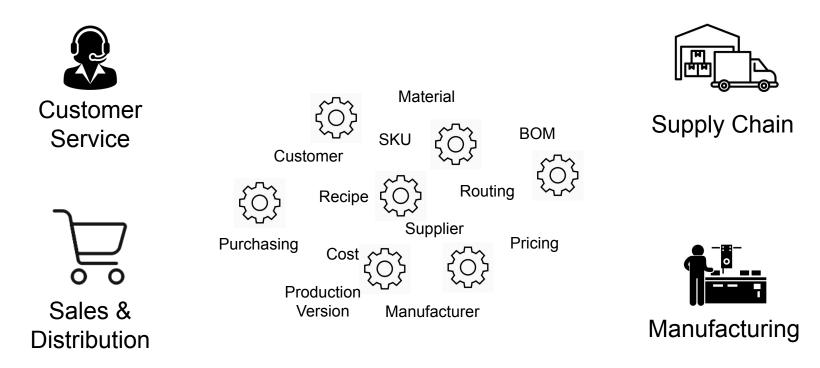
#### Paper and Pulp Industry Leader

Finished Goods Material Request and Setup



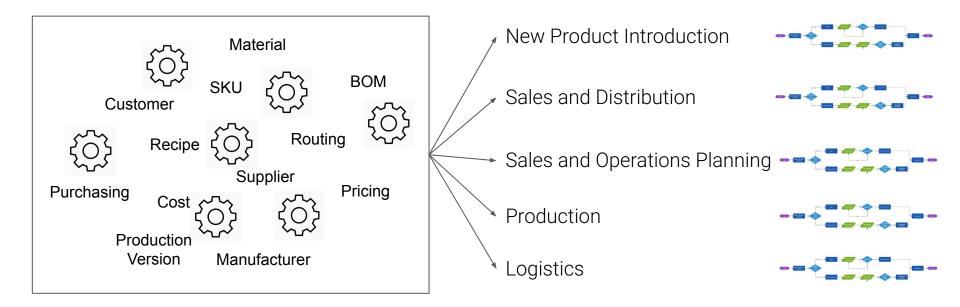
6

# Good and Timely Master Data is Critical for Supply Chain Excellence





## Master Data is the Backbone of Supply Chain Processes





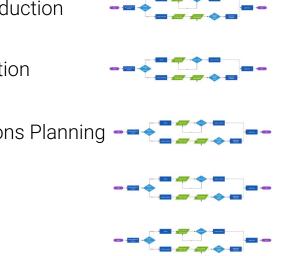
## Master Data can Make or Break Supply Chain Processes

New Product Introduction

Sales and Distribution

Production

Logistics



Delays in Product Launch

Export control and compliance issues

Order fulfillment issues

Incorrect transportation planning

Costing issues

Customer onboarding delay

Missing quality inspection plans



# Agenda

- Panelists
- Brief Intro
- Master Data and the Supply Chain
- Getting Started with Supply Chain Master Data Excellence
- Building the Business Case for Master Data Excellence
- Supply Chain Master Data Requires End-to-End Processes
- Pursuit of Perfect Master Data
- Validating the Business Case
- Q&A



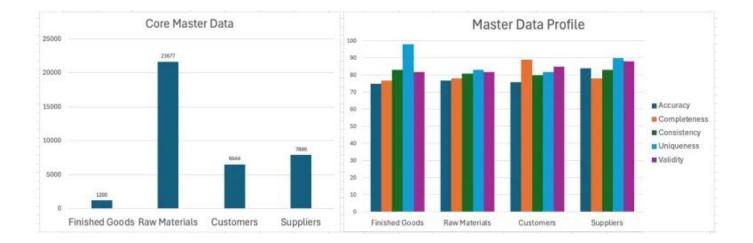
# Start with Supply Chain Master Data Excellence Assessment

Supply Chain Master Data Assessment

Assessment of Processes that create and update Master Data



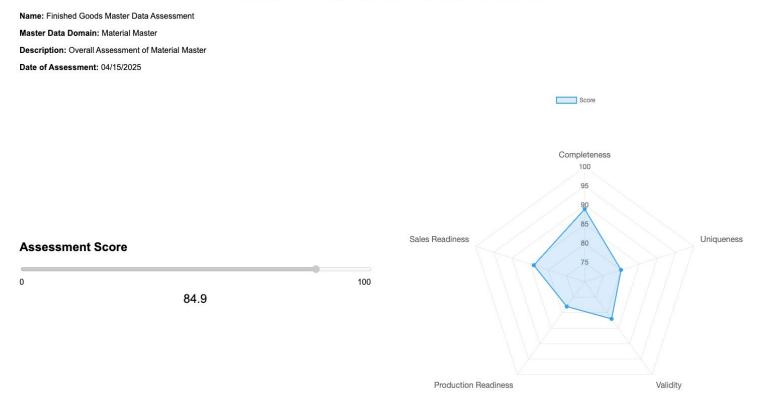
## Assessment of Supply Chain Master Data





#### Assessment of Supply Chain Master Data

**Finished Goods Master Data Assessment** 



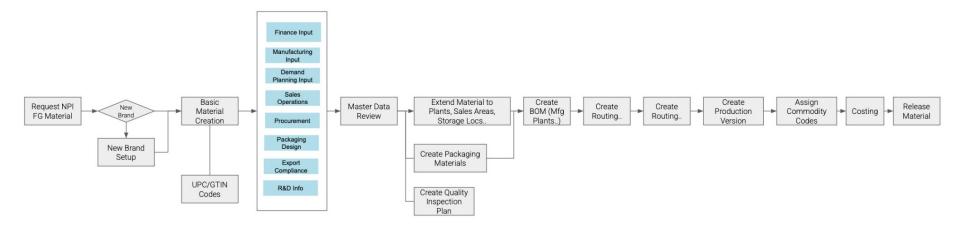


## Assessment of Supply Chain Master Data

Add Master Dat	ľ	D,	r Data Assessment Fra	. / 8	ngi				
# Name D	Description Z	Maste	r Data Assessment - Materia	i					×
🗌 1 🥒 🕦 Finished Goods Master Data Assessment 🛛 F	inished Goods Mas		Delete Items Save Cha		Validate Reset Reports	Comments Transfer Export F	○ □ ↓ avorite Close Include	• Load More	
🗌 2 🥒 🗊 Pricing Master Data Assessment 🛛 P	ricing Master Data			3					
□ 3 🖉 ① Purchased Parts P	Purchased Parts Ma Mas	ster Data	Assessment	Name:	Finished Goods Master D	ata Assessment Mas	ster Data Domain:	Material	
🗌 4 🥒 🗊 Supplier Master Data Assessment S	iupplier Master Dat 🖲		Material	Description:	Finished Goods Master D	ata Assessment			
	0		Completeness	Assessment Date:	2025/04/17	Sco	ore:	79.30	Creatior
	0		Sales Texts in all languages	Last Update:	2025/04/15 2				
	0		Pricing conditions						
	0		HTS Codes	MDA Dimension	Add MDA Dimension	Delete All MDA Dimensions	Paste Data	Expand/Collapse Exp	ort
	0		Hierarchy	■ #1↓	Name	w	/eight	Score	
	0		Accuracy	0 1 / 🔳	Completeness		20.00	85.00	
	0		Uniqueness	2 /	Accuracy		20.00	90.00	
	0	•		3 / 💌	Uniqueness		10.00	98.00	
				□ 4 / 💌	Sales Readiness		30.00	75.00	
	0		Sales Readiness	5 / 💌	Production Readiness		20.00	60.00	
	0		Production Readiness						



#### Master Data Process Assessment



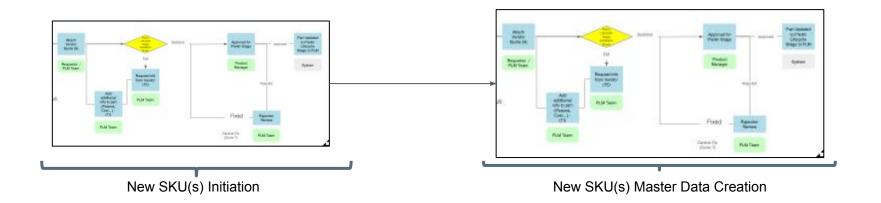
Cycle Time: 50-60 days Process Cost: \$500-1200 Waiting Time: 40 days

→ Improvement Potential

Cycle Time: 10 days Process Cost: \$50 Waiting Time: 5 days



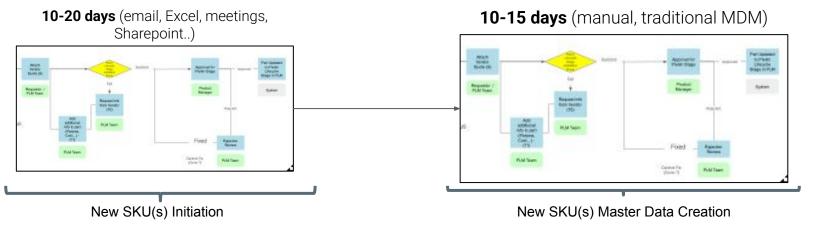
#### SKU Introduction and Master Data Management



		SKU Initiation/I	Request and Mas	ster Data Creati	on Proces	SS		
Initiate Project / Request	Cross-functional Collaboration	Reviews and Approval	Create Basic or All Views for Default Plant (Copy from Like Material)	Extend to Plants, Sales Orgs, Storage locations	Create BOM	Create Routing / Recipe	Create PIR / Source List.	



#### Before (traditional approach)



#### After (Digital Workflow)

#### 3-5 days

SKU Initiation/Request and Master Data Creation Process								
Initiate Project / Request	Cross-functional Collaboration	Reviews and Approval	Create Basic or All Views for Default Plant (Copy from Like Material)	Extend to Plants, Sales Orgs, Storage locations	Create BOM	Create Routing / Recipe	Create PIR / Source List.	



#### Improvement Potential for Many Master Data Processes

Master Data Process	Master Data Domain	Annual Number
New Material Creation	Material Master	1,000
Extending Materials	Material Master	5,000
New Part Request	Material Master	1,500
New Pricing	Material Master	5,000
Pricing Change	Material Master	10,000
Bill of Material	Material Master	200
Bill of Material Change	Material Master	800
Routing	Material Master	200
Approved Supplier	Material Master	600
Purchase Info Record	Material Master	600
Approved Supplier Changes	Material Master	1,200
Purchase Info Record Changes	Material Master	1,400
Approved Manufacturer	Material Master	1,800
Component Change	Material Master	2,200
Component End-of-life	Material Master	800
Product End-of-life	Material Master	200
Quality Planning Info	Material Master	1,200
New SKU	SKU	200
SKU Submission to Amazon	SKU	300
SKU Changes	SKU	600
**		
New Supplier Request	Supplier	800
New Supplier Creation	Supplier	600
Supplier Blocking/Unblocking	Supplier	600
Supplier Info Change	Supplier	1,200
New Customer Onboarding	Customer	600
***		
New Equipment Install	Equipment	400
Equipment BOM	Equipment	200

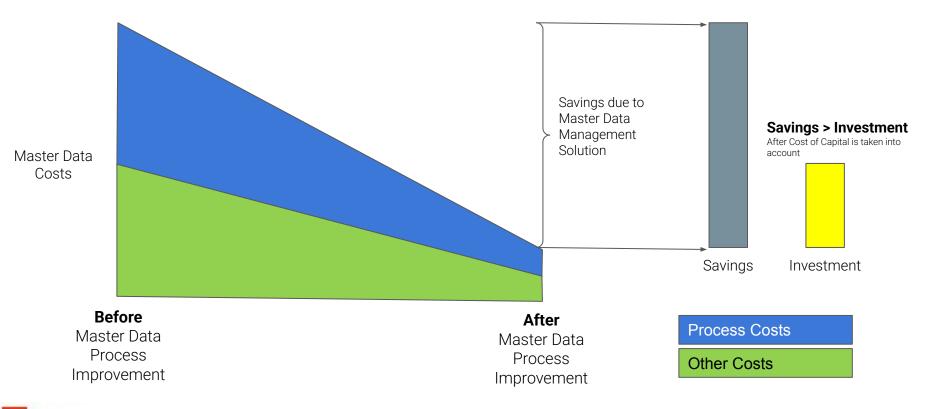


# Agenda

- Panelists
- Brief Intro
- Master Data and the Supply Chain
- Getting Started with Supply Chain Master Data Assessment
- Building the Business Case for Master Data Process Improvement
- Supply Chain Master Data Requires End-to-End Processes
- Pursuit of Perfect Master Data
- Validating the Business Case
- Q&A



#### **Business Case for Master Data Excellence**





#### Supply Chain Master Data Process Costs

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	s Cost			1,991,000



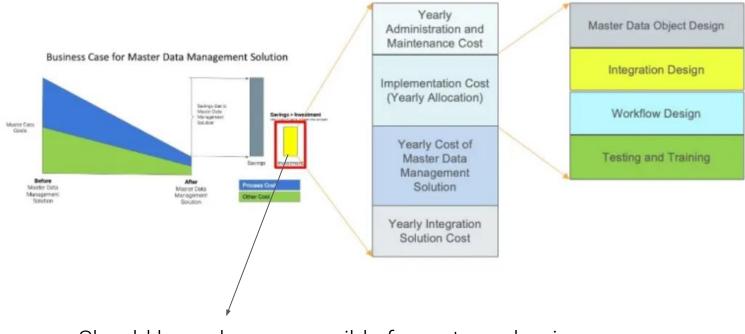
## Analyze and Highlight Other Business Costs due to Poor Master Data

Some examples below:

- Excess Inventory costs due to duplicate materials
- Retail Chargebacks Incorrect UPC and GTIN
- Order rework missing master data for Units of Measure
- Cost of NPI delay



#### Investment



Z MDM

Should be as low as possible for a strong business case (ideal 6 months - 1 year payback period)

# Agenda

- Panelists
- Brief Intro
- Master Data and the Supply Chain
- Getting Started with Supply Chain Master Data Assessment
- Building the Business Case for Master Data Process Improvement
- Supply Chain Master Data Requires End-to-End Processes
- Pursuit of Perfect Master Data
- Validating the Business Case
- Q&A

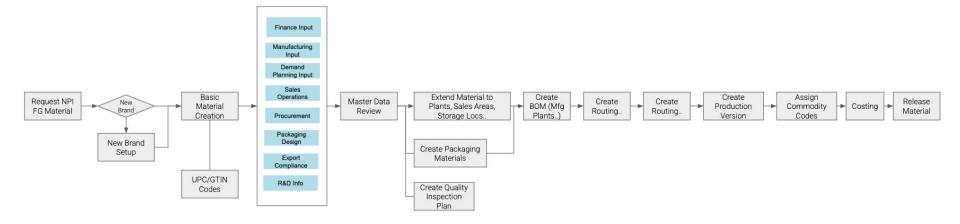


#### Supply Chain Master Data Management





#### End-to-End Process



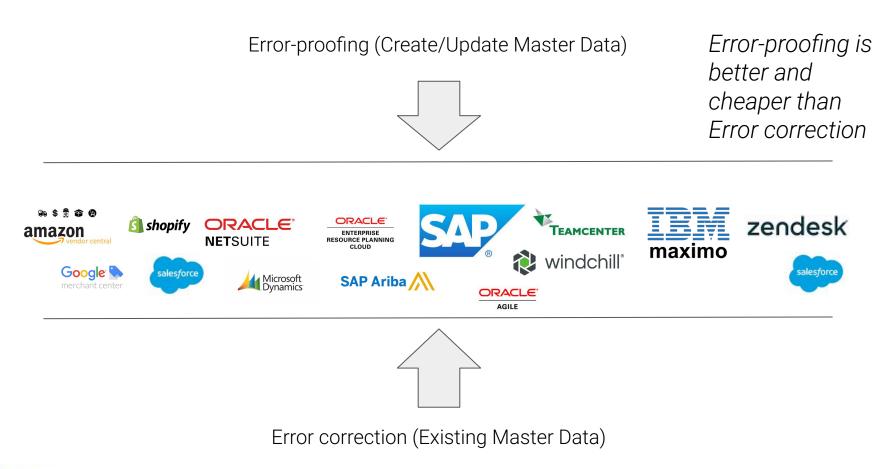


# Agenda

- Panelists
- Brief Intro
- Master Data and the Supply Chain
- Getting Started with Supply Chain Master Data Assessment
- Building the Business Case for Master Data Process Improvement
- Supply Chain Master Data Requires End-to-End Processes
- Pursuit of Perfect Master Data
- Validating the Business Case
- Q&A

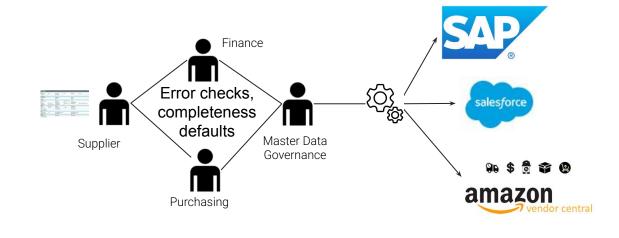


#### **Pursuit of Perfect Master Data**





# Using Poka-Yoke Principles for Error Proofing



Simplified and Minimal Input

**Default Values** 

Drop-downs

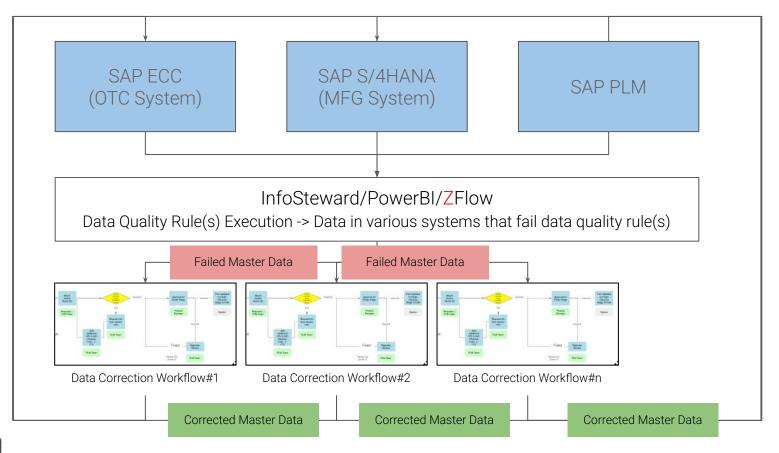
Dependent auto-selection of values based on logic

Calculated values

Type, Min-Max....



#### Continuous Data Quality Analysis and Error Correction



Z MDM

## **Error Correction Workflows**

Start	Process Start	1
Get Delivery Unit Failures	Special Function SQL-	1
Verify Failures Exist	Go To	
Calculate Changes Required	Special Function CallUserDefinedFunction	1
Enter Correct Data	Data Preparation	
Validate & Approve Updates	Approval	
Update SAP	Special Function - DeliveryUOM	h
Review SAP Errors	Review	1
Send Confirmation Notice	Notification	1
End	Process End	1

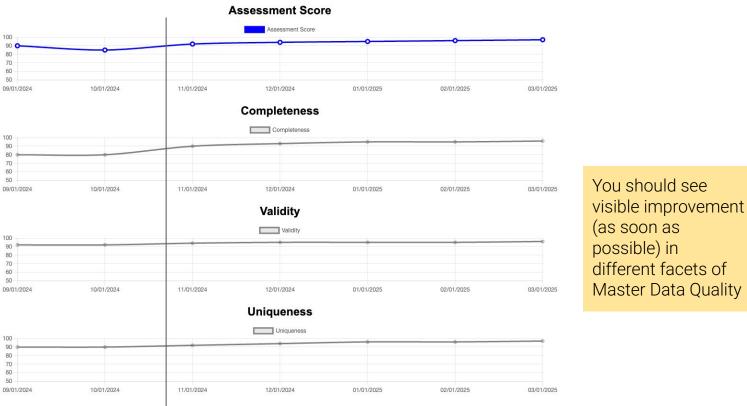


# Agenda

- Panelists
- Brief Intro
- Master Data and the Supply Chain
- Getting Started with Supply Chain Master Data Assessment
- Building the Business Case for Master Data Process Improvement
- Supply Chain Master Data Requires End-to-End Processes
- Pursuit of Perfect Master Data
- Validating the Business Case
- Q&A



#### Validating the Business Case - Master Data Quality Improvement

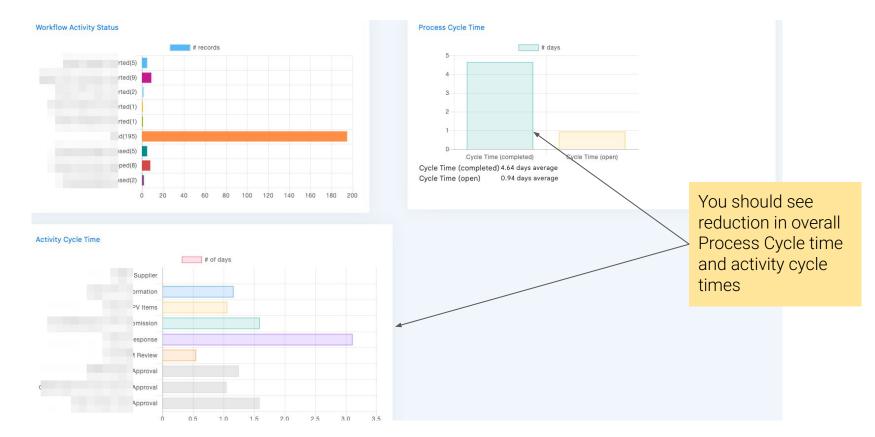


Sales Readiness



#### **Excellence Initiative**

### Validating the Business Case - Master Data Processes





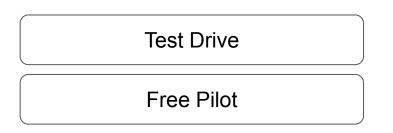
# Agenda

- Panelists
- Brief Intro
- Master Data and the Supply Chain
- Getting Started with Supply Chain Master Data Assessment
- Building the Business Case for Master Data Process Improvement
- Supply Chain Master Data Requires End-to-End Processes
- Pursuit of Perfect Master Data
- Validating the Business Case
- <u>Q&A</u>



# Summary

- End-to-End Processes are the best approach for Supply Chain Master Data Management
- Assessment of Master Data Before/After is Critical for justifying and validating the Business Case for Master Data Excellence
- It is possible to achieve Perfect Master Data with a systematic and two-pronged approach





# For More Information

Kris Gorrepati

Cambrian Lab <u>kris.gorrepati@cambrianlab.net</u> +1-408-569-3744

