



Integrating VOC, Kano, and QFD in Process Design

How a Financial Services Company Utilized DFSS to Eliminate “The Herbie”

Mike Seawood
Program Manager





Farm Credit Mid-America

“Securing the future of rural communities and agriculture”

- **Agricultural lending cooperative**
 - Indiana
 - Ohio
 - Kentucky
 - Tennessee
- **Business Segments / Products**
 - Farm loans
 - Rural 1st home loans
 - Crop Insurance
 - Agribusiness
 - Capital / Middle Markets
- **\$22B owned and managed assets**
- **100,000 customers**
- **1,150 employees**



(Consumer Lending)



The Why

Burning Platform



Business need

- Grow consumer lending segment \$600M in 2019

Opportunity

- Consumer lending center of excellence for the Farm Credit System
- How – through Rural 1st partner integration

What is preventing us?

- Scalability of current consumer loan process

Current State – Consumer loan process turn time

- Application date – Close date
- 55 days (avg)

Call to action

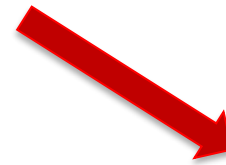
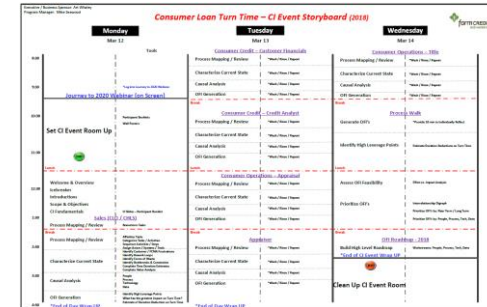
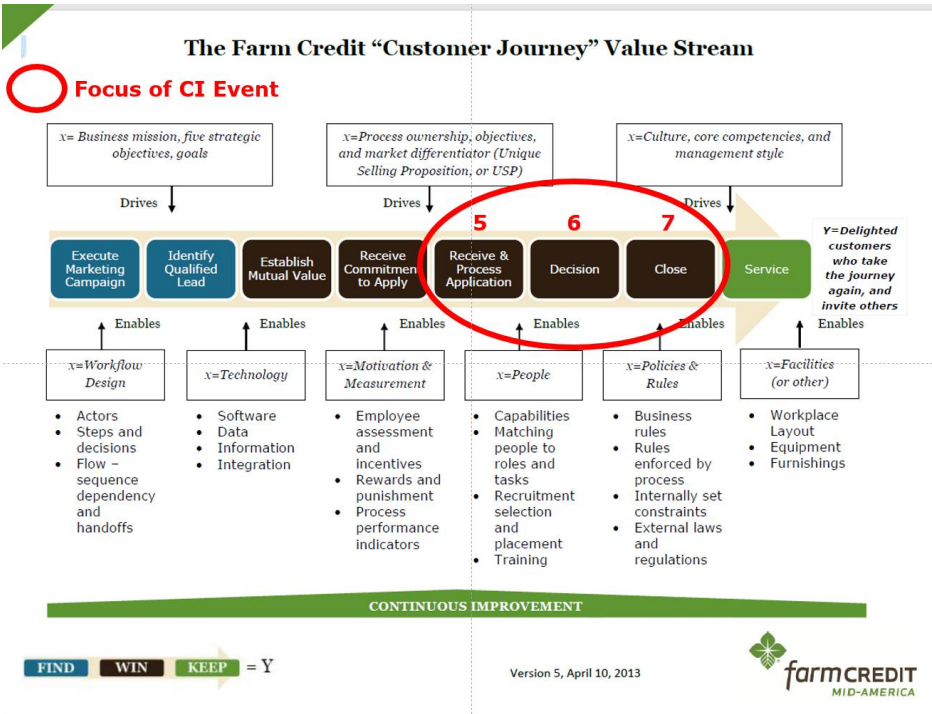
- Rural 1st partner ready **1Q2019**
- Target (consumer loan process turn time): **30 day (avg)**



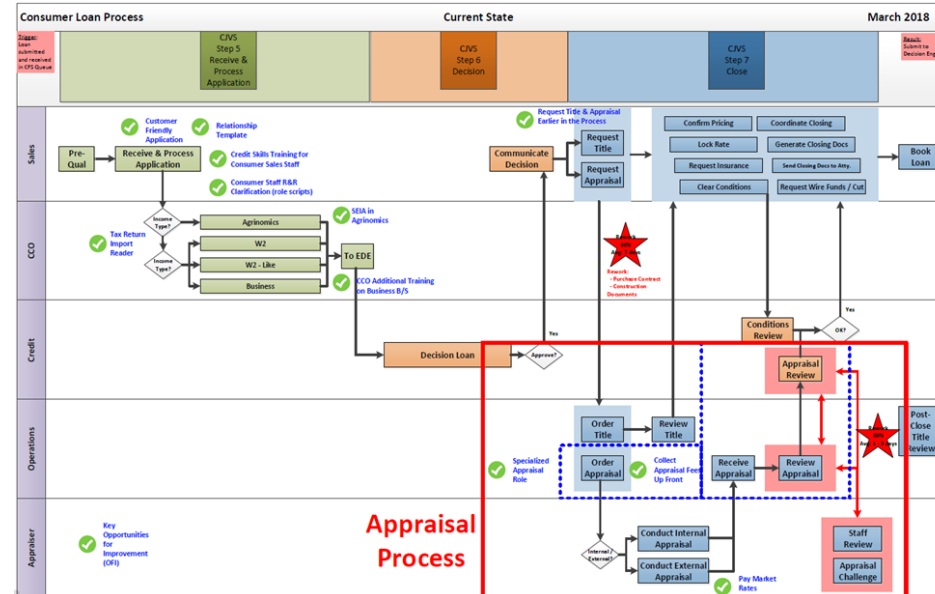
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D - Define

Consumer Lending Process (CI Event – Mar 2018)



CI Event Storyboard



"The Herbie"

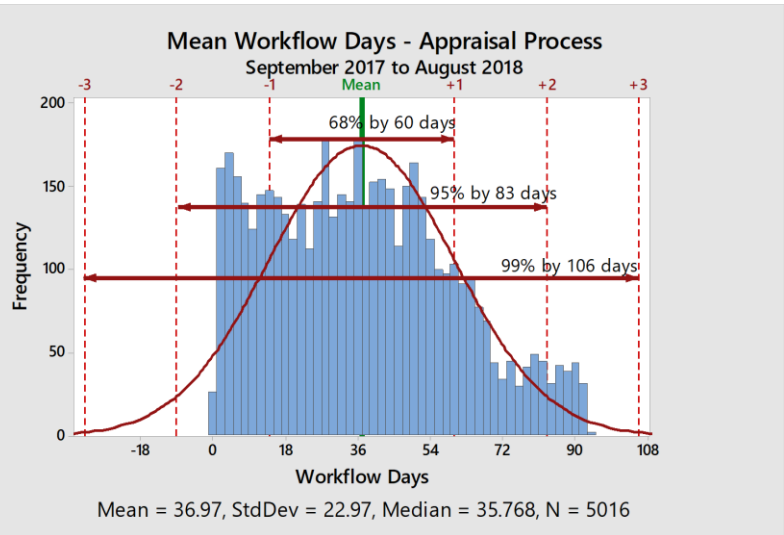
- Typically conducted in parallel to other closing activities
- 60% of consumer loan process time
- Numerous forms of waste



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D - Define

Appraisal Process (Current State)

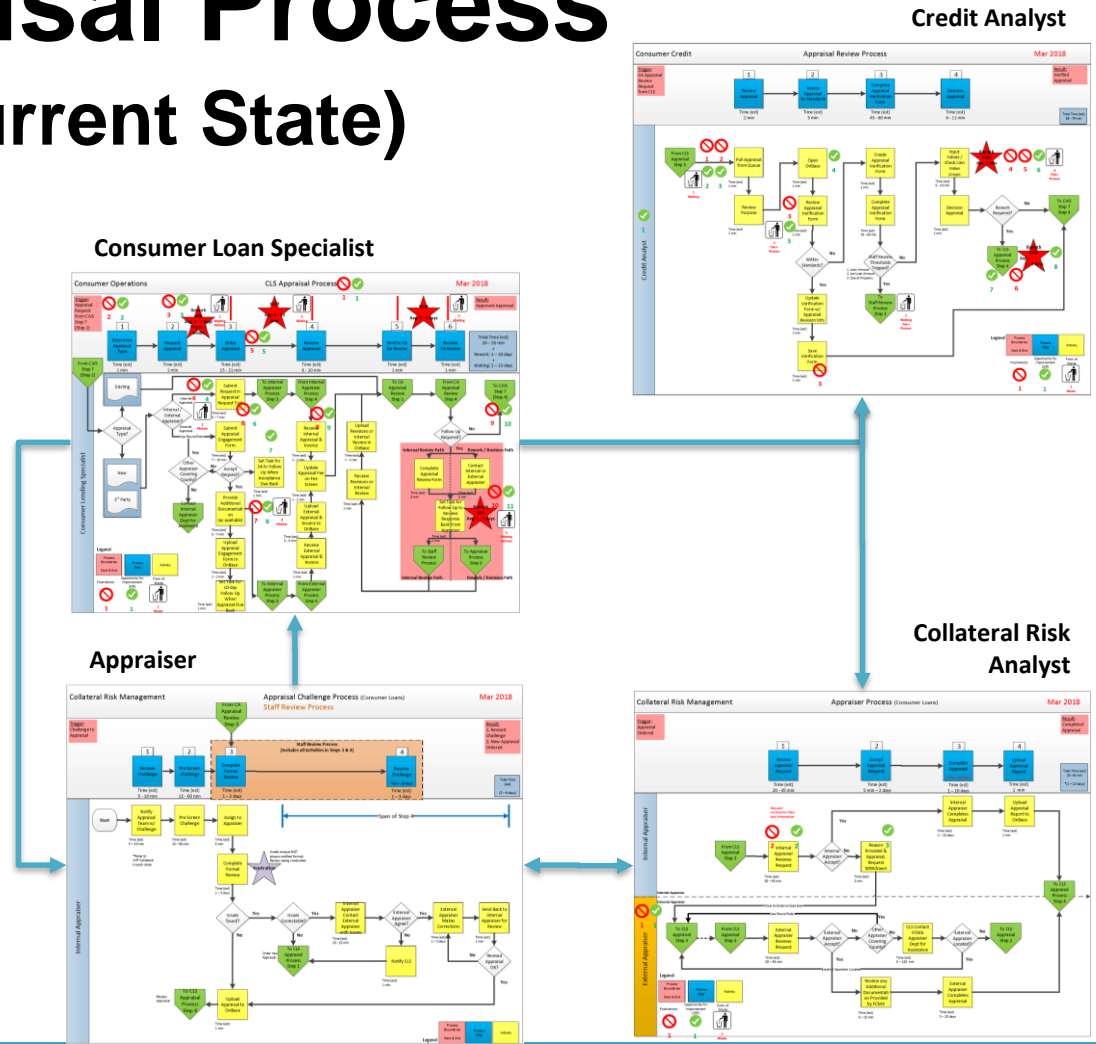


“The Herbie”

Causes

- Role responsibilities
- Technology limitations
- # Handoffs
- # Reworks
- # Rush requests

Mean = 37 days
Median = 36 days
StdDev = 23 days





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A - Analyze

DFSS Event (May 2018)

Executive Sponsors: Keith Lane, Steve Allard, Art Whaley
Business Sponsors: Art Whaley, Dennis Badger
Program Manager: Mike Seawood

Future State Appraisal Process – CI Event Storyboard (2018)

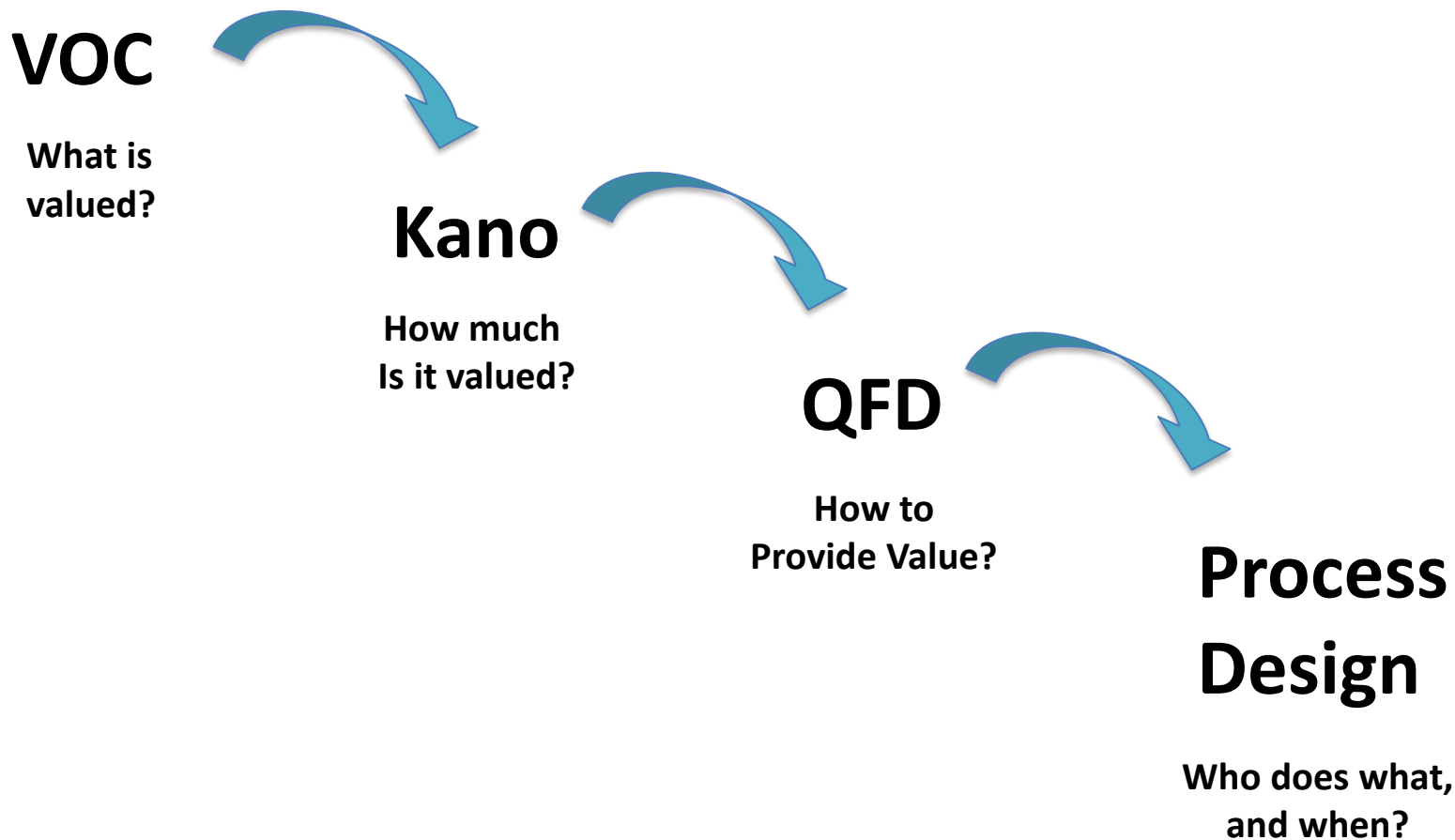
	Tuesday May 15	Wednesday May 16	Thursday May 17
8:30		Voice of the Customer (VOC) - Survey Results - Kano Model	Technology Needs Discovery - Walk the process - Review each system / tool - Identify / scope needs - Prioritize enhancements to enable piloting of the future state process
9:30		House of Quality (HOQ) – 1 (Needs)	Training Needs Assessment
10:30	Set CI Event Room Up	HOQ – 2 (Objectives)	Risk Assessment - What could go wrong? - Countermeasures?
11:30	Lunch	Lunch	Lunch
12:15	Welcome & Overview	Design Future State Process	Develop Pilot Plan
12:30	Icebreaker		
1:30	Current State Appraisal Process - Process Review - Current State Characterization - Opportunities for Improvement (OFI)	Design Future State Process	Report Out – Set Up & Rehearsal
2:30	Future State Vision / Goals / Guidance	Design Future State Process	Report Out - Video
3:30	Optics Appraisal Management Company (AMC) DFSS Fundamentals		
4:30	*End of Day Wrap UP	*End of Day Wrap UP	*End of CI Event Wrap UP





A - Analyze

Integration of DFSS Tools





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M - Measure VOC Survey (Performance Requirements)

Rate the **IMPORTANCE** of the following requirements for the appraisal process

Importance		Not at all important		Somewhat important		Important		Very Important		Extremely important
Requirement	Question	1	2	3	4	5	6	7	8	9
1	How important is receiving status or progress updates?									
2	How important is timeliness for completing the appraisal process?									
3	How important is it to have knowledgeable appraisers?									
4	How important is it to have skilled appraisal support staff?									
5	How important is it to limit contact / interaction with you during the appraisal process?									
6	How important is the quality (complete and error-free) of the appraisal report?									
7	How important is it for you to understand the flow of the appraisal process?									
8	How important is responsiveness to your questions or needs?									
9	How important is flexibility in scheduling the inspection date / time? *scheduling is dependent upon availability of both the customer and appraiser									
10	How important is an Inquisitive interaction by the appraiser with you during the inspection?									
11	How important is the credibility of the appraised value?									
12	How important is it for customers to provide all minimum required documentation and information prior to the appraisal being requested?									

Rate the **SATISFACTION** when the requirement is met / when it is present / or when it is good

Satisfied		I like it	I expect it	I am neutral	I can tolerate	I dislike
Requirement	Question	1	2	3	4	5
1	How do you feel when status or progress updates are provided?					
2	How do you feel when the timeliness for completing the appraisal process is good?					
3	How do you feel when knowledgeable appraisers are provided?					
4	How do you feel when skilled appraisal staff are present / available?					
5	How do you feel when limited contact / interaction with you during the appraisal process is made?					
6	How do you feel when quality (complete & error-free) of the appraisal report is present / met / good?					
7	How do you feel when you understand the flow of the appraisal process?					
8	How do you feel when responsiveness to your questions or needs is met / good?					
9	How do you feel when flexibility in scheduling inspection date / time is available / provided / good?					
10	How do you feel when an Inquisitive interaction by the appraiser during the inspection is present / good?					
11	How do you feel when the credibility of the appraised value is good?					
12	How do you feel when customer minimum required documentation / information is present or provided prior to requesting an appraisal?					

Observation:

You think you know your customers' needs, but do you really?

Rate the **DISSATISFACTION** when the requirement is not met / when it is not present / when it is poor



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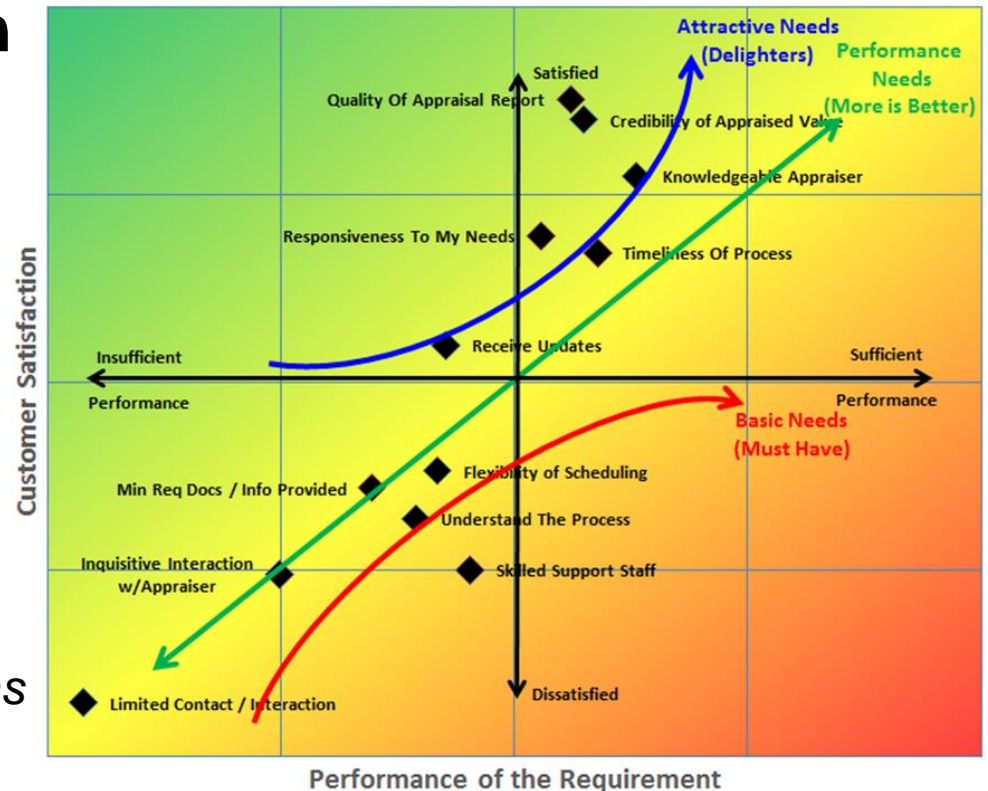
Kano Model (Performance Requirements)

- Compares Satisfaction vs Performance
- Relative Importance
 - Basic Needs
 - Satisfiers
 - Delighters

Observation:

Team found it interesting that **Credibility of Appraised Value** was a *Delighter* and not *Basic Need*

Appraisal Critical to Satisfaction (CTS) Requirements





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QFD (Process Objectives)

What's

- Performance Requirements

How's

- Process Objectives

Observation:

QFD exercise benefitted by having all current state maps and analyses displayed on the room walls for team to consider

- *To gemba or not to gemba...*

Quality Function Deployment (QFD)										Voice of the Customer (VOC) Requirements									
Process Needs										Process Objectives									
Relationship										"The How's"									
9 Strong										Column #									
3 Medium										1 2 3 4 5 6 7 8 9 10									
1 Weak										Directional Target									
"The What's"										↔ ↔ ↓ ↑ ↓ ↓ ↑ ↑ ↑ ↑									
Req #	Process Needs	Customer Importance	How Importance Rating	Adj. Weighted Customer Importance	Raw Score	Weighted Importance	Rank	Send Updates	Set Expectations w/ Customer	Reduce Handoffs	Obtain Complete & Accurate Information	Reduce Opportunities for Rework	Simplify & Consolidate Review Processes (to CA Review to Staff Appraiser Review)	Improve Appraiser / Preprint Assignments	Specialized Role(s)	Improve Information Flow / Updates in Systems	Educate Customer on the Appraisal Report		
1	Receive Updates	6.50	2.20	14.27	399.59	4.73%	8	9	7		1	1				9			
2	Timeliness of the process (perceived)	7.41	2.69	19.92	1593.48	18.87%	2	7	9	9	9	9	9	9	9	9			
3	Knowledgeable Appraiser (perceived)	6.15	3.10	25.25	959.55	11.36%	4		3		9	9		9			7		
4	Skilled Support Staff	6.85	2.24	15.36	568.36	6.73%	6		3	3	9	9	3		9				
5	Limited Contact / Interaction	3.38	0.29	0.97	40.87	0.48%	12	3	3	1	9	9		3	1	9	3		
6	Quality of Appraisal Report (perception)	6.26	3.51	28.98	1681.09	19.91%	1			3	9	9		9	9	9	9		
7	Understand the Process	5.76	1.58	9.07	263.09	3.12%	9	3	9	1	3				9		3		
8	Responsiveness to My Needs	7.38	2.78	20.50	1250.77	14.81%	3	9	9	3	9	3	9	3	9	3	3		
9	Flexibility of Scheduling	5.97	1.67	9.97	199.35	2.36%	10	1	9		9								
10	Inquisitive Interaction w/ Appraiser	5.09	0.99	5.05	90.93	1.08%	11		1		9			3	1	3			
11	Credibility of Appraised Value	6.26	3.40	28.05	869.53	10.30%	5		3		9			9			9		
12	Min Req Docs / Info Initially Provided	6.56	1.43	9.41	527.10	6.24%	7	7	9	3	9	9			9	9			
13																			
25																			
								Raw Score	558.4	933.7	412.1	1512.8	974.9	409.9	999.4	935.3	738.7	781.7	
								Relative Score	6.76%	11.31%	4.99%	18.32%	11.81%	4.96%	12.10%	11.33%	8.95%	9.47%	
								Rank	8	5	9	1	3	10	2	4	7	6	

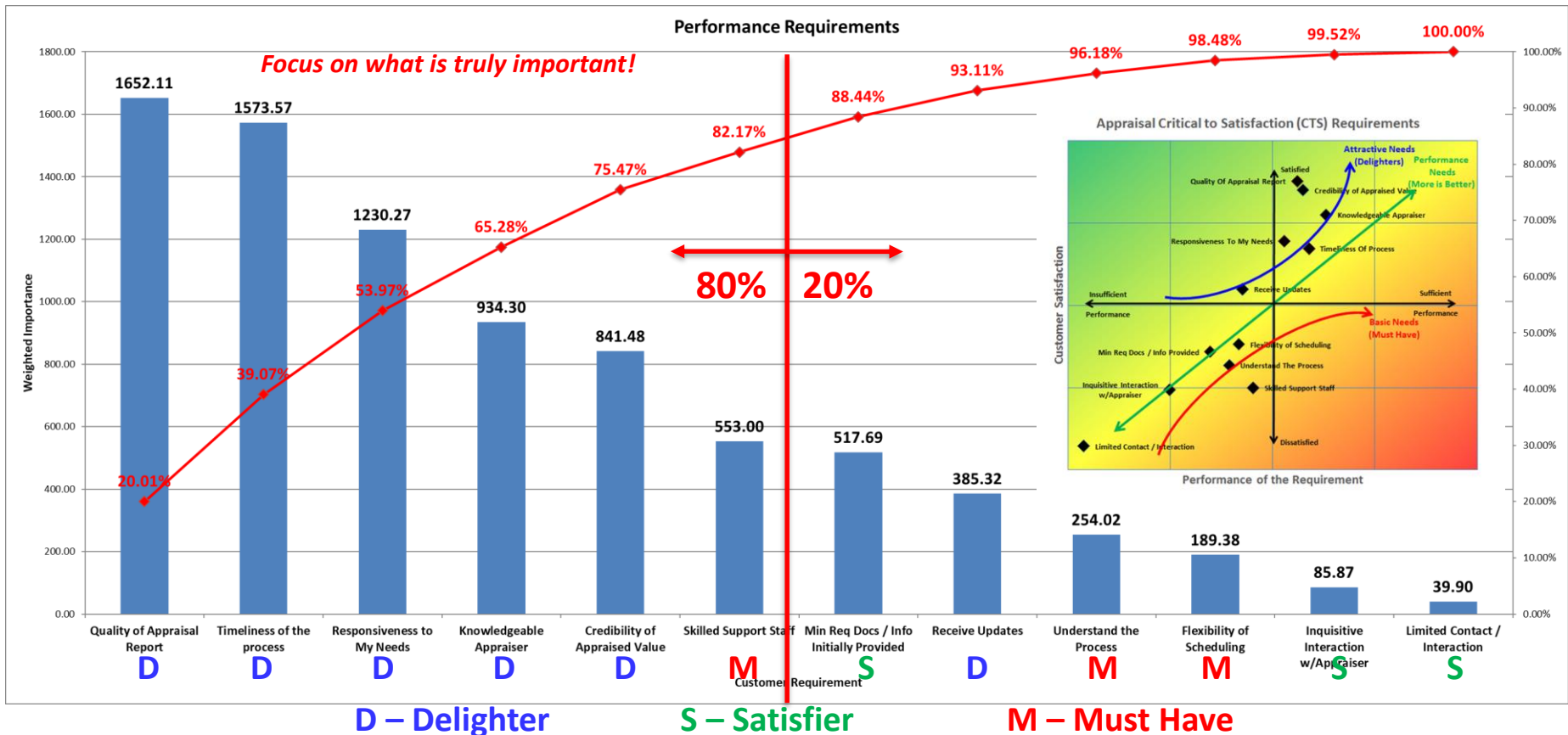


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A - Analyze

QFD

(Weighted) Performance Requirements



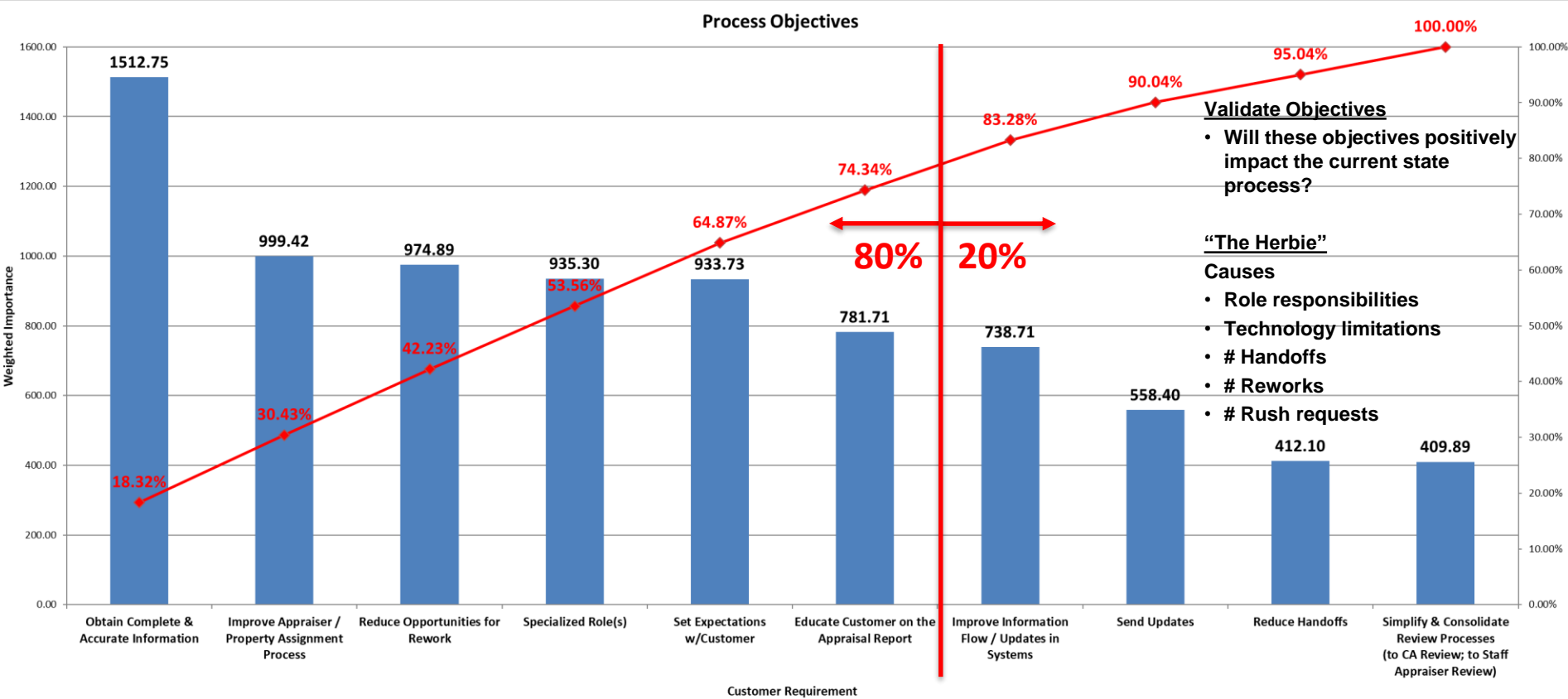


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A - Analyze

Process Objectives

Appraisal Process Design





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D - Design

SIPOC Appraisal Process Design

Observation:

SIPOC is a great tool to talk through objectives, and to draft up an initial process map

- High level design
- Process scoping tool
- Information map
- What needs to happen
- Who needs to do it

Consumer Appraisal Process (Internal AMC)							May 2018	
Trigger: Customer Incent to Proceed	1	2	3	4	5	6	7	Result: Approved Value Appraisal Report
	Gather Info	Request Appraisal	Schedule Inspection	Conduct Inspection	Complete Report	Decision Appraisal	Notify Customer	
Supplier (of information)	<ul style="list-style-type: none"> Customer CLO CLS <Appraisal Specialist> 	<ul style="list-style-type: none"> <Appraisal Specialist> 	<ul style="list-style-type: none"> Staff Appraiser Fee Appraiser Property contact 	<ul style="list-style-type: none"> Staff Appraiser Fee Appraiser Property Contact <Appraisal Specialist> *Sub category: CLO / CLS – if clarification necessary 	<ul style="list-style-type: none"> Staff Appraiser Fee Appraiser 	<ul style="list-style-type: none"> Staff Appraiser Fee Appraiser <Appraisal Specialist> Collateral Risk Specialist 	<ul style="list-style-type: none"> <Appraisal Specialist> CLS 	
Inputs (to process step)	<ul style="list-style-type: none"> Property type Dwelling type Additional improvements Notes to appraiser (critical info appraiser will need to know; logistical info) – To Do: Angela K has a tin from Indiana Minimum required documents from Customer 	<ul style="list-style-type: none"> Minimum documents in OnBase Notification to request appraisal (in Appraisal Tracker) Property contact information 	<ul style="list-style-type: none"> Minimum documents in OnBase Accepted appraisal request (internal) Accepted appraisal engagement letter (external) Availability of both appraiser and property contact Clarifications for any appraiser questions 	<ul style="list-style-type: none"> Minimum documents in OnBase Clarifications for any appraiser questions 	<ul style="list-style-type: none"> Property assessment Comparables 	<ul style="list-style-type: none"> Appraisal report Valuation report Appraisal verification form Values from appraisal report Staff review thresholds 	<ul style="list-style-type: none"> Decided appraisal / Valuation Determine if adjustments to loan are needed 	
Process (step)	Gather Info	Request Appraisal	Schedule Inspection	Conduct Inspection	Complete Report	Decision Appraisal	Notify Customer	
Primary Role: CLS		Primary Role: <Appraisal Specialist>	Primary Role: Appraiser	Primary Role: Appraiser	Primary Role: Appraiser	Primary Role: Appraisal Specialist	Primary Role: CLS	
Outputs (from process step)	<ul style="list-style-type: none"> Verified documents (signed contracts; docs viewable) Notification to request appraisal (in Appraisal Tracker) Property contact information 	<ul style="list-style-type: none"> Appraisal request (internal) Appraisal engagement letter (external) 	<ul style="list-style-type: none"> Scheduled inspection 	<ul style="list-style-type: none"> Property assessment Environmental concerns – limited occurrence 	<ul style="list-style-type: none"> Appraisal report Valuation report 	<ul style="list-style-type: none"> Decided appraisal 	<ul style="list-style-type: none"> Communicated Valuation Report Communicated cover letter explaining appraisal / valuation report 	
Customer (of outputs)	<ul style="list-style-type: none"> Group Distribution list <Appraisal Specialist> 	<ul style="list-style-type: none"> Staff appraiser (internal) Fee appraiser (external) 	<ul style="list-style-type: none"> Staff Appraiser Fee Appraiser Property contact CLO - awareness CLS - awareness 	<ul style="list-style-type: none"> Staff Appraiser Fee Appraiser 	<ul style="list-style-type: none"> <Appraisal Specialist> Collateral Risk Specialist 	<ul style="list-style-type: none"> <Appraisal Specialist> CLS 	<ul style="list-style-type: none"> Customer 	
Systems & Tools (used in process)	<ul style="list-style-type: none"> cLogic Relationship To Do (N/A) Web form in Appraisal Tracker; need access for pilot users Appraisal Tracker OnBase 	<ul style="list-style-type: none"> Request flag in cLogic To Do – How does pilot request? Appraisal Tracker requires current Appraisal Request Tool Appraisal Tracker OnBase 	<ul style="list-style-type: none"> Review docs in OnBase Update Relationship w/ inspection date Appraisal Tracker OnBase 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Update A.T. Upload to OnBase Appraisal Tracker OnBase 	<ul style="list-style-type: none"> Appraisal verification form Update cLogic, A.T., Rel Open OnBase Appraisal Tracker OnBase 	<ul style="list-style-type: none"> N/A 	
Technology Requirements	<ul style="list-style-type: none"> Data transfer from cLogic (Collateral screen) to Appraisal Tracker Redesign Appraisal queue in cLogic Standardize comments / templates Validation checklist PDF standardization Doc type to ID latest appraisal in OnBase Update workflow & work queues logic 	<ul style="list-style-type: none"> Create appraisal request template Automate sending of engagement letter Automate acceptance of engagement letter Data transfer to Relationship from Appraisal Tracker (accepted, accepted by, due date, est. complete date) 	<ul style="list-style-type: none"> Update Relationship w/ inspection date 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Method for return of appraisal report from staff & fee appraiser 	<ul style="list-style-type: none"> Update appraisal review complete Status and amounts in cLogic for approved collateral value 	<ul style="list-style-type: none"> Method for sending cover letter (appraisal report explanation) – Simplicity / CSI 	



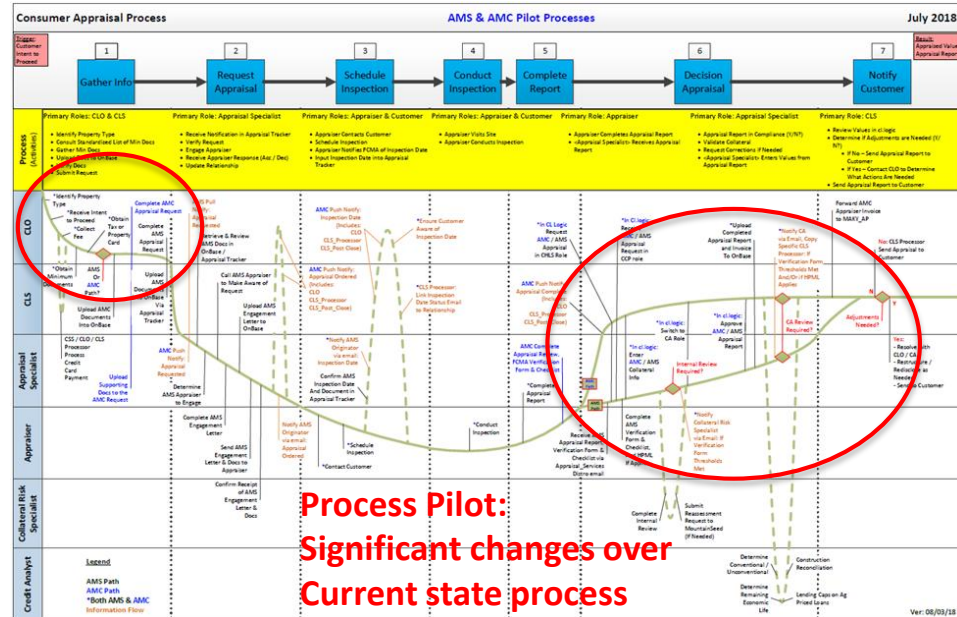
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D - Design

Future State Process

Appraisal Process Design (to Pilot)

- Detailed level
- Who is doing what, and when
- Captures
 - Workflow
 - Information flow
 - System interactions



Observation:

Aligning everyone in understanding who does what, and when is key to executing the Pilot



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O - Optimize

Appraisal Process Pilot

- 8 week pilot; 2 regions
- AMC Path
 - Internal Appraisal Team
- AMC Path
 - External Appraisal Company
- Weekly retrospectives

Evaluation Criteria		AMS (Internal)	AMC (External)
*Turn Time	✓	Avg:9.0 days (107 loans)	Avg:17.0 days (48 loans)
Scalability	✓	Utilize / Improve Existing Panel (ex – FCS Illinois)	Unwillingness to provide AMC panel
*Quality	✓	On Par No Quality Reviews Conducted	On Par No Quality Reviews Conducted
Cost (estimated) (To support Rural 1 st)	✓	< * \$ Removed >	\$30K greater *Excludes 2 headcount
*Process	✓	Significant more influence and control over AMS process management	Significantly less influence and control over AMC process management

*Key Process Design Objectives	AMS	AMC	
Obtain Complete & Accurate Information	✓		*QFD derived process Objectives utilized In the Pilot Assessment
Improve Appraiser / Property Assignment Process	✓		
Reduce Opportunities for Rework	✓		
Role Specialization / Skilled Personnel	✓		
Set Expectation w/Customer	✓		



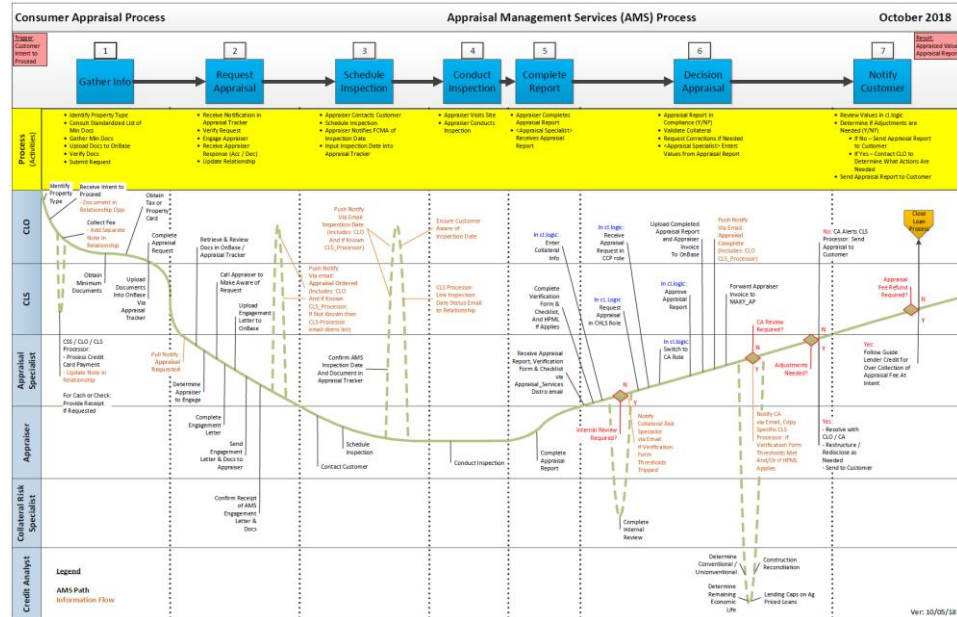
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O - Optimize

AMS Appraisal Process (Final)

AMS Appraisal Process eliminated “the Herbie”

- **Specialized**
 - Roles and responsibilities
- **Reduced**
 - Technology limitations
 - # Handoffs
 - # Reworks
- **Eliminated**
 - Rush requests



Observation:

Sustain the change through training and process governance



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V - Verify

Consumer Loan Turn Time Improvements

		Consumer Loan Turn Time		
Consumer Region	Pilot	Jan - Jul 2018	Aug - Sep 2018	Reduction
	("Path")	(days)	(days)	(days)
1 - Indiana	AMC - External	57.7	37.9	-19.8
2 - Ohio	AMS - Internal	58.8	39.1	-19.7

Target: 30 days (avg)

Appraisal Process Pilot Results

- Directionally positive
 - Both Pilot regions reduced consumer loan process turn time
- Further analysis warranted to isolate appraisal process specific improvements
 - Consumer Operations Team – Additional concurrent role specialization enhancements



Successes

Objective	Concept
People	Individual skills and experience using VOC, Kano, QFD, Process Mapping, SIPOC, Pilot, Retrospectives
Process	<ul style="list-style-type: none"> • Dedicated focus on “the Herbie” • Process design
Business Segments	Consumer Lending results created demand for Agricultural Lending improvements
FCMA Association	New business capability to affect an improved customer experience (DFSS: DMADOV)
Customer	<ul style="list-style-type: none"> • VOC provided path to influence process re-design • Significantly improved customer experience!



Next Steps

Schedule	Consumer Lending Effort
4Q2018	Staff & train (internal) Appraisal Management Services (AMS) Team
4Q2018	Implement AMS Appraisal process across Rural 1 st consumer lending
1Q2019	O - Optimize - Technology enablement opportunities
1Q2019	V – Verify – Assess process performance with technology enhancements; close project
Schedule	Agricultural Lending Effort
Oct 2018	Conduct initial CI event – Map the end-to-end Ag Loan Process; Identify DFSS opportunities



Create Waves of Excellence

- How does your organization **listen to customers**?
- How are you integrating **VOC needs** to affect an **exceptional customer experience**?
- How are you exploring ways to **innovate in process design**?
- What **difference** is it making?
- Is it having a **positive effect** on your bottom line?



Thank You!

Your opinion is important to us!

Please take a moment to complete the survey using the conference mobile app.

Session No: ThS/48

Integrating VOC, Kano, and QFD in Process Design

How a Financial Services Company Utilized DFSS to Eliminate “The Herbie”

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Farm Credit Mid-America

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