

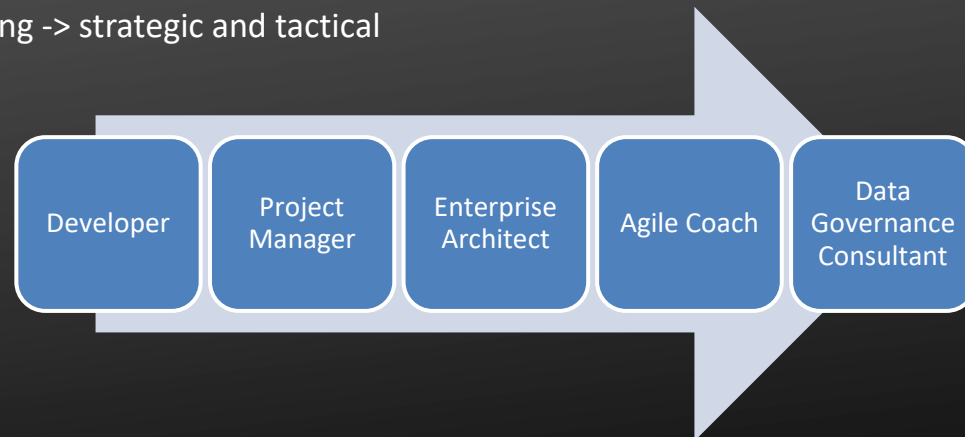
The background features a dark gray field with several light gray circular and semi-circular patterns. A prominent scale on the left side ranges from 140 to 260 in increments of 10. Various circular elements, some with arrows, are scattered across the page, creating a technical or data-oriented aesthetic.

AGILE DATA GOVERNANCE

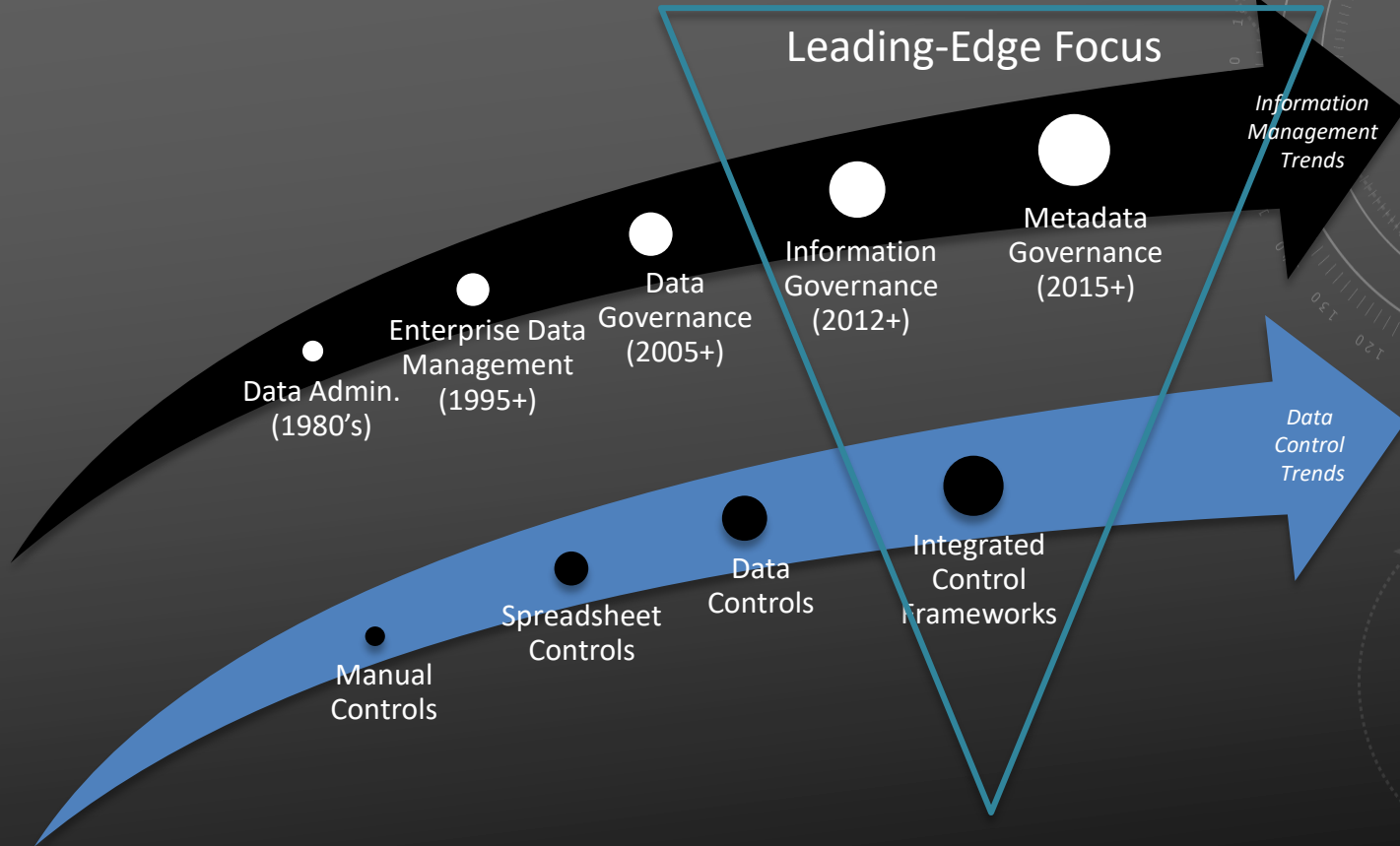
TAMI FLOWERS
METAGOVERNANCE
MARCH 15, 2018

WHO AM I?

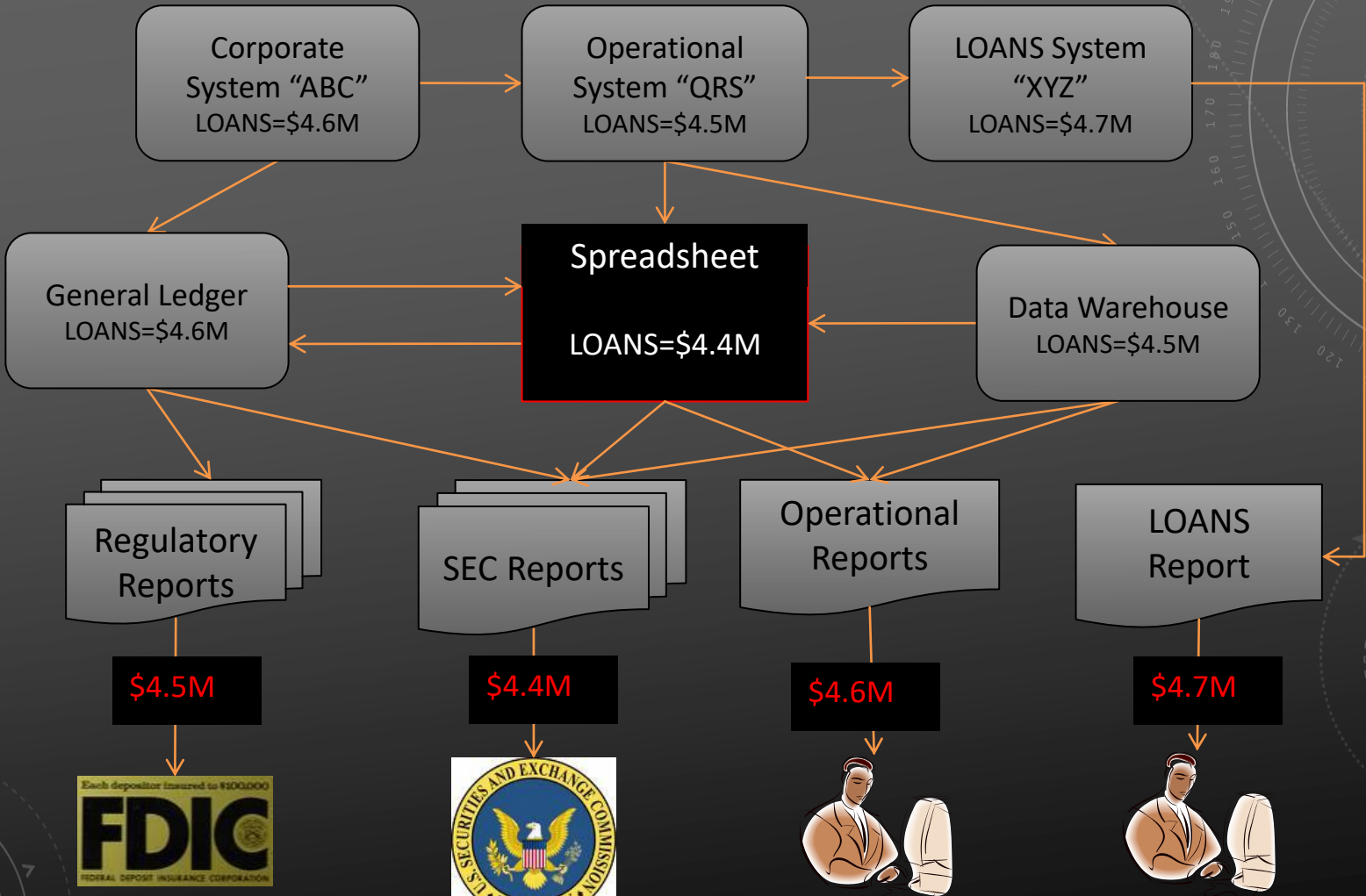
- Tami Flowers
- Director, Governance Solutions at MetaGovernance
- PMI-PMP, PMI-ACP, and Certified Scrum Master
- Agile Coach
- Business Process Modeling -> strategic and tactical



RIDING THE WAVES OF CHANGE



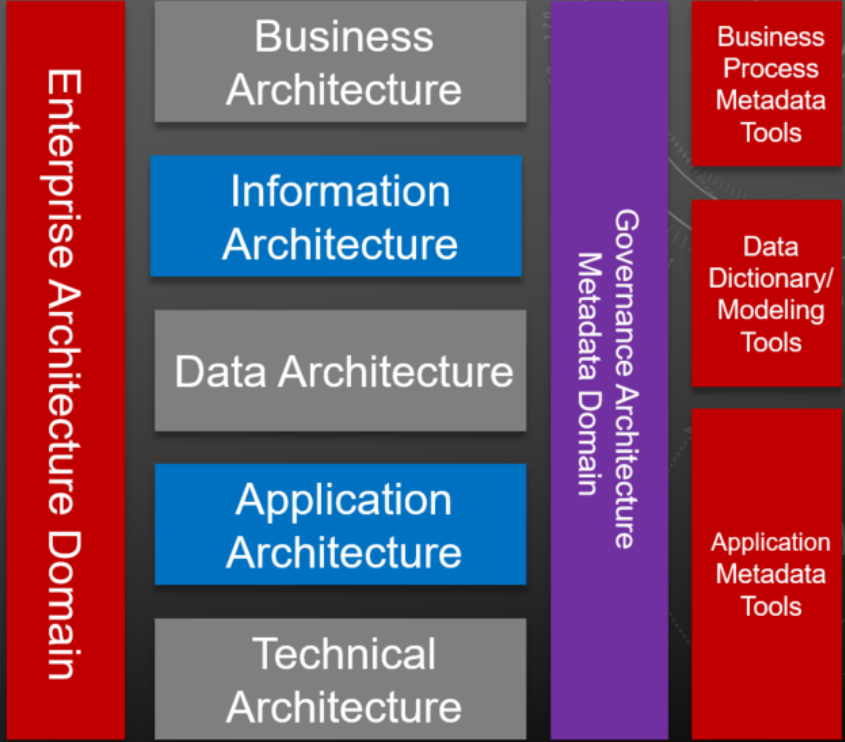
THE PROBLEM - MANY VERSIONS. WHICH IS CORRECT?



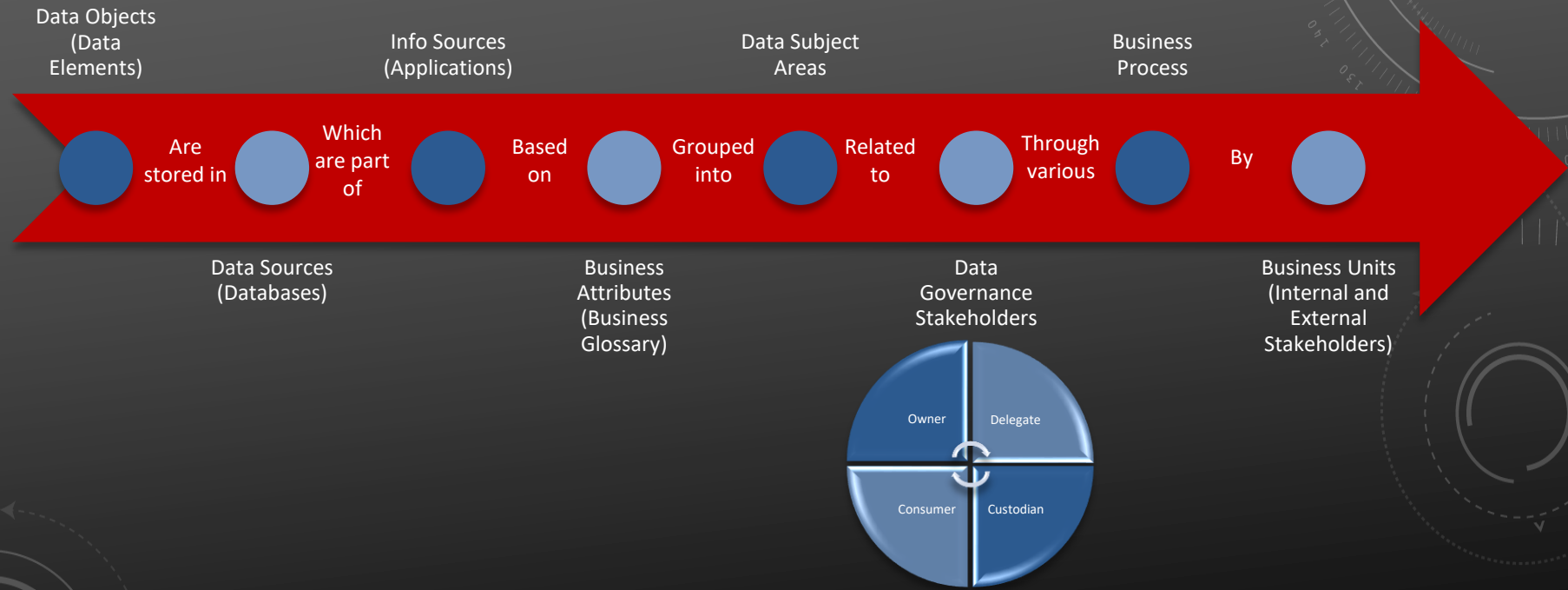
METAGOVERNANCE

Organizations are optimizing process but forgetting about the information. We help organizations understand and optimize information flow and processes.

We provide a unique governance framework that crosses the entire organization focusing on data, business process, controls and technology.



GLUING IT ALL TOGETHER TO ENABLE AWARENESS




ID	SUBJECT AREA	DESCRIPTION
001	TRADE / LOAN / INITIAL ISSUANCE	Details related to the initial issuance of a consumer loan.
002	TRADE / LOAN / TRADE BALANCES	Contains updated consumer loan balance details.
010	TRADE / LOAN / LOAN ACCOUNTING	Contains loan balances, including interest due on current and


Subject Area: (002) TRADE / LOAN / TRADE BALANCES


 Details

 Categories

 **Governance (5)**

 Info Sources

 Business Attributes

 Security Classes

 Retention Classes

 SA Type Groups

ORG. GROUP	ROLE TYPE	EFFECTIVE FROM
Accounting (ACCOUNTING)	Owner	Apr 1, 2016
Compliance (COMPLIANCE)	Consumer	Apr 1, 2016
Consumer Lending (CONSUMER LENDING)	Consumer	Apr 1, 2016
Credit Risk (CREDIT RISK)	Consumer	Aug 1, 2016
Enterprise Risk & Modeling (ENTERPRISE RISK & MODE...)	Consumer	Aug 1, 2016

Governance Roles and Information Sources by Subject Area



Subject Code: 002* **Subject Area:** ADVANCE/TRADE BALANCES

Official System of Record: LOAN ORIGINATION SYSTEM **Security Classification:** Sensitive **Retention:** 7Y 7 years from last business event

Org. Group	Governance Role	Org. Group Information Source	Org. Group System of Record	Effective From	Effective Thru
Accounting	Delegate	LOAN ORIGINATION SYSTEM	Yes	07/13/2017	Still Effective
Accounting	Delegate	UDA100*	Yes	07/13/2017	Still Effective
Compliance	Consumer	LOAN ORIGINATION SYSTEM	Yes	04/01/2016	Still Effective
Consumer Lending	Consumer	LOAN ORIGINATION SYSTEM	Yes	04/01/2016	Still Effective
Correspondent Banking	Delegate	LOAN ORIGINATION SYSTEM	No	07/13/2017	Still Effective
Credit Risk	Owner	LOAN ORIGINATION SYSTEM	No	07/13/2017	Still Effective
Enterprise Risk & Modeling	Consumer	UDA100*	No	07/13/2017	Still Effective
Market Risk	Consumer	UDA100*	No	08/01/2016	Still Effective

Organization Group: Accounting				
Governance Role	Subject Area Code	Subject Area	Information Source	System Of Record
Delegate	002*	ADVANCE / TRADE BALANCES	LOAN ORIGINATION SYSTEM	Yes
Delegate	002*	ADVANCE / TRADE BALANCES	UDA100*	Yes
Owner	010	TRAN / MPF / LOAN ACCOUNTING	INTEREST ADJUSTMENT SPREADSHEET	Yes
Owner	010	TRAN / MPF / LOAN ACCOUNTING	LOAN ORIGINATION SYSTEM	Yes
Consumer	011	TRAN / MPF / LOAN DELINQUENCY	GENERAL LEDGER	No
Owner	013	TRAN / MPF / TRADE BALANCES	LOAN ORIGINATION SYSTEM	Yes

Subject Area (SA) Name	Business Attribute (BA)	BA Description	Data Object (DO)
ADVANCE/TRADE BALANCES	ACCRUED INTEREST	Accrued Interest amount on the Bank's book for a security.	Trade > ACCRINT > demoTrade
ADVANCE/TRADE BALANCES	ACCRUED INTEREST	Accrued Interest amount on the Bank's book for a security.	GL > ACCOUNT BALANCE > demoGL
ADVANCE/TRADE BALANCES	ACCRUED INTEREST	Accrued Interest amount on the Bank's book for a security.	TradeSum > ACCR_INT > demoEDW
ADVANCE/TRADE BALANCES	ACCRUED INTEREST	Accrued Interest amount on the Bank's book for a security.	demo_acctxls > ACCRUED INTEREST > ACCTXLS
ADVANCE/TRADE BALANCES	CURRENT PRINCIPAL	The current principal amount of the loan or mortgage.	
ADVANCE/TRADE BALANCES	ESTIMATED MATURITY DATE	Estimated Maturity Date of the security as forecasted from model.	
ADVANCE/TRADE BALANCES	ADVANCE ID	Primary identifier for a loan or mortgage.	Trade > LOANID > demoTrade
ADVANCE/TRADE BALANCES	ADVANCE ID	Primary identifier for a loan or mortgage.	TradeSum > LOAN_ID > demoEDW
ADVANCE/TRADE BALANCES	LEGAL ENTITY ID	Unique Identifier for a business partner.	Trade > MEMBERRID > demoTrade
ADVANCE/TRADE BALANCES	LEGAL ENTITY ID	Unique Identifier for a business partner.	TradeSum > MEMBER_ID > demoEDW
ADVANCE/TRADE BALANCES	LEGAL ENTITY NAME	The name of the business partner. This name may or may not be the fully legal name of the business partner.	Trade > MEMBERNAME > demoTrade
ADVANCE/TRADE BALANCES	LEGAL ENTITY NAME	The name of the business partner. This name may or may not be the fully legal name of the business partner.	TradeSum > MEMBER_NAME > demoEDW

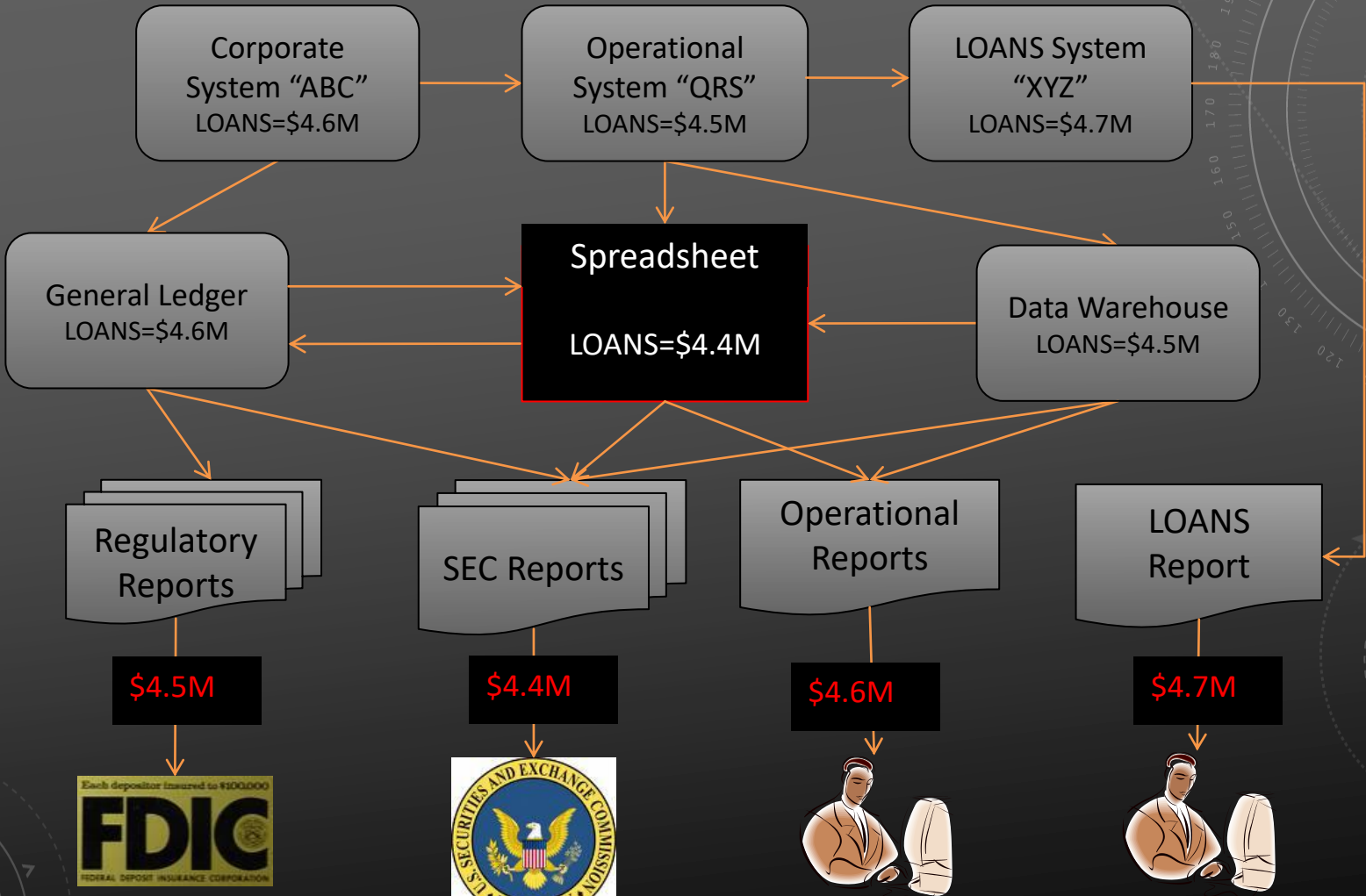


TODAY

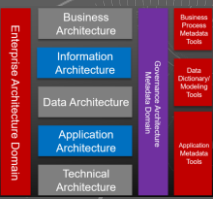
- Data Governance Framework
- Agile
- How to use them together



THE PROBLEM - MANY VERSIONS. WHICH IS CORRECT?



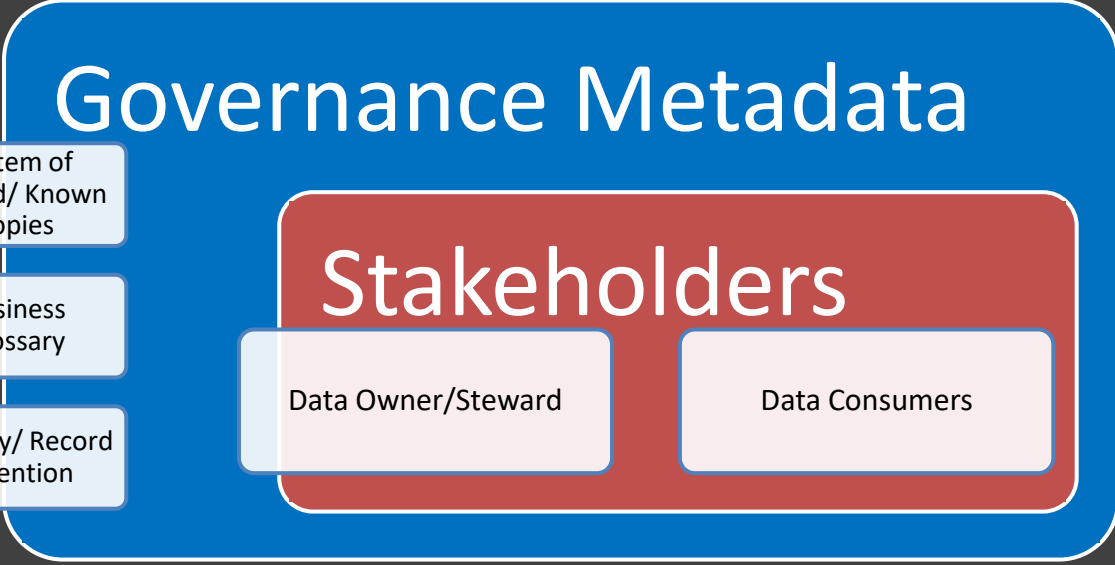
IDEALIZED END STATE



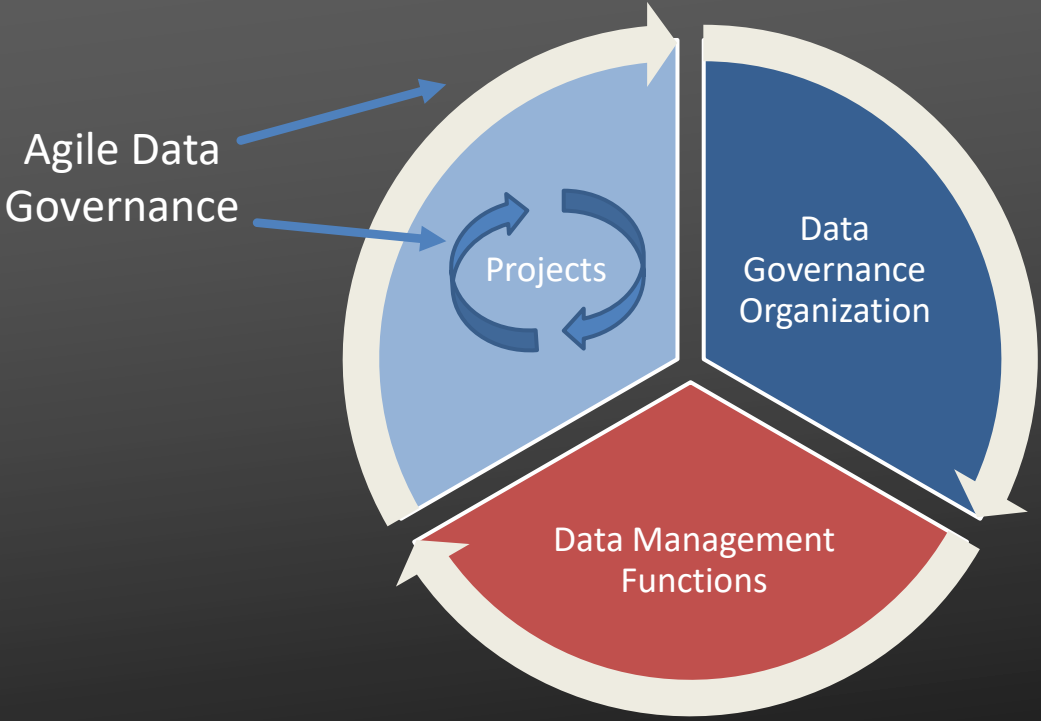
Data Governance Framework

- Business Process Integration
- Data Enhancement
- Reconciliation and Control Framework
- Liaison to Corporate Governance
- Charter, Policy and Procedures

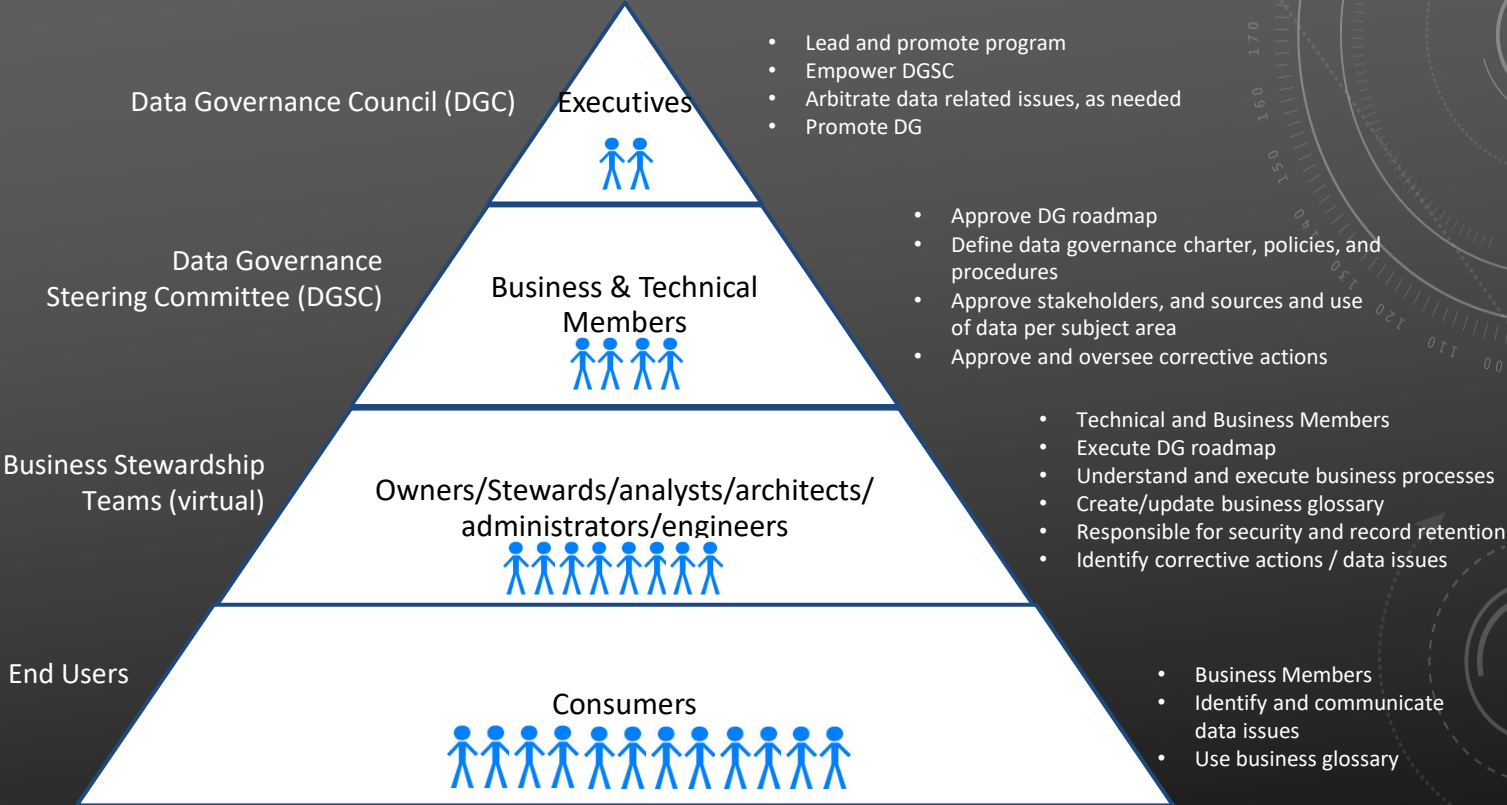
- System of Record/ Known Copies
- Business Glossary
- Security/ Record Retention



AGILE DATA GOVERNANCE



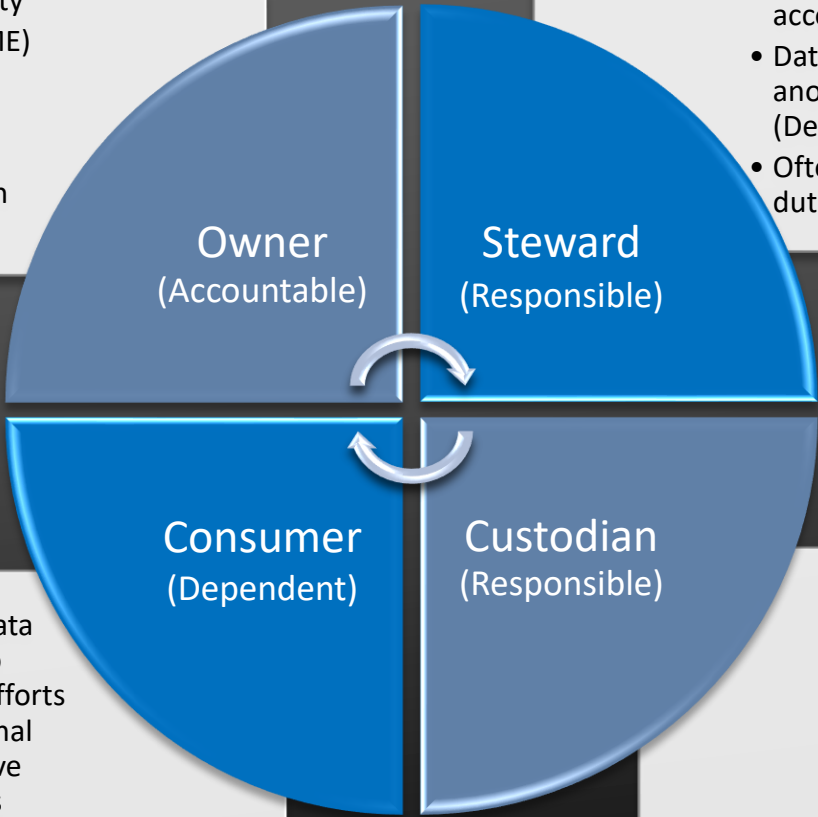
DATA GOVERNANCE FRAMEWORK



BUSINESS STEWARDSHIP MODEL

- Accountable for Data Quality
- Subject Matter Experts (SME)
- Follows process workflow
- Data Owners are normally tasked with data entry / collection unless there is an overriding reason

- Responsible but not solely accountable
- Data maintenance on behalf of another Business Unit (Delegates)
- Often driven by separation of duties issues



- Vested stakeholders of data
- “Missing puzzle piece” to most Data Governance efforts
- Business Units and external entities that use or receive data are Data Consumers
- Registered consumers of data

- Responsible for safeguard of physical data assets
- Custodians are IT or external vendor
- Custodian may be a business unit in the case of End-User Computing



MAINTAINING AWARENESS OF SOURCE AND USE OF DATA

Data Subject Area ID	Major Subject Group	1 st Sub Grouping	2 nd Sub Grouping	Accounting Operations	Collateral	Credit Risk	Market Risk	Member Services	Sales	Compliance	Information Technology
1	Trade	Loan	Adjustable-Rate Loan	Blue	Blue	Blue	Blue	Blue	Yellow	Red	Grey
5	Trade	Loan	Letters of Credit	Blue	Blue	Blue	White	Blue	Yellow	White	Grey
6	Trade	Loan	Prepayment Fee	Grey	White	Blue	White	Yellow	Yellow	White	White
11	Financial	Accounting	Accrued Interest	Grey	White	Blue	White	Blue	Blue	White	White
12	Financial	Accounting	Outstanding Principle	Yellow	Blue	Blue	White	Blue	Blue	Red	Grey
LEGEND											
CONSUMER		Blue									
OWNER		Yellow									
STEWARD		Red									
CUSTODIAN		Grey									



THE AGILE MANIFESTO

*We are uncovering better ways of developing software by doing it and helping others do it.
Through this work we have come to value:*

Individuals and interactions over Processes and tools

Working software over Comprehensive documentation

Customer collaboration over Contract negotiation

Responding to change over Following a plan

That is, while there is value in the items on the right, we value the items on the left more.

In February 2001, 17 software developers met at the Snowbird resort in Utah to discuss lightweight development methods. They published the Manifesto for Agile Software Development.



AGILE PRINCIPLES

- Our highest priority is to satisfy the customer through early and continuous delivery of valuable **software governance and governance** processes.
- Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
- Deliver working **software governance** frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
- Business people and developers must work together daily throughout the project.
- Build **projects governance** around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

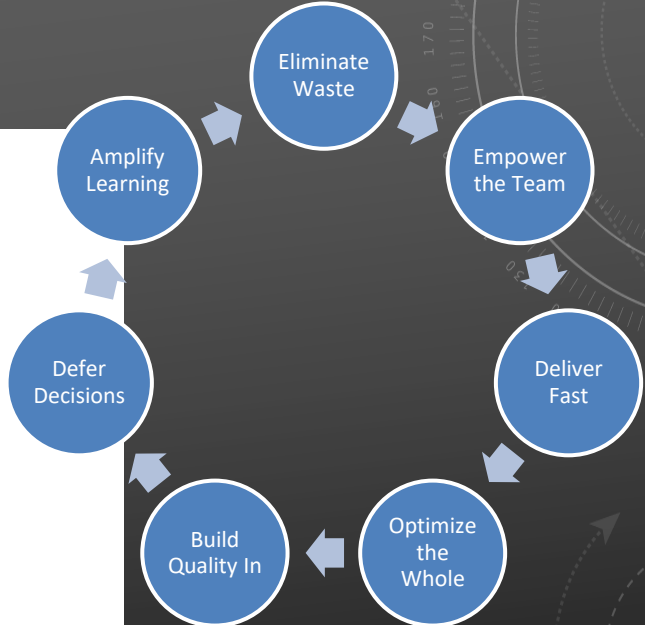
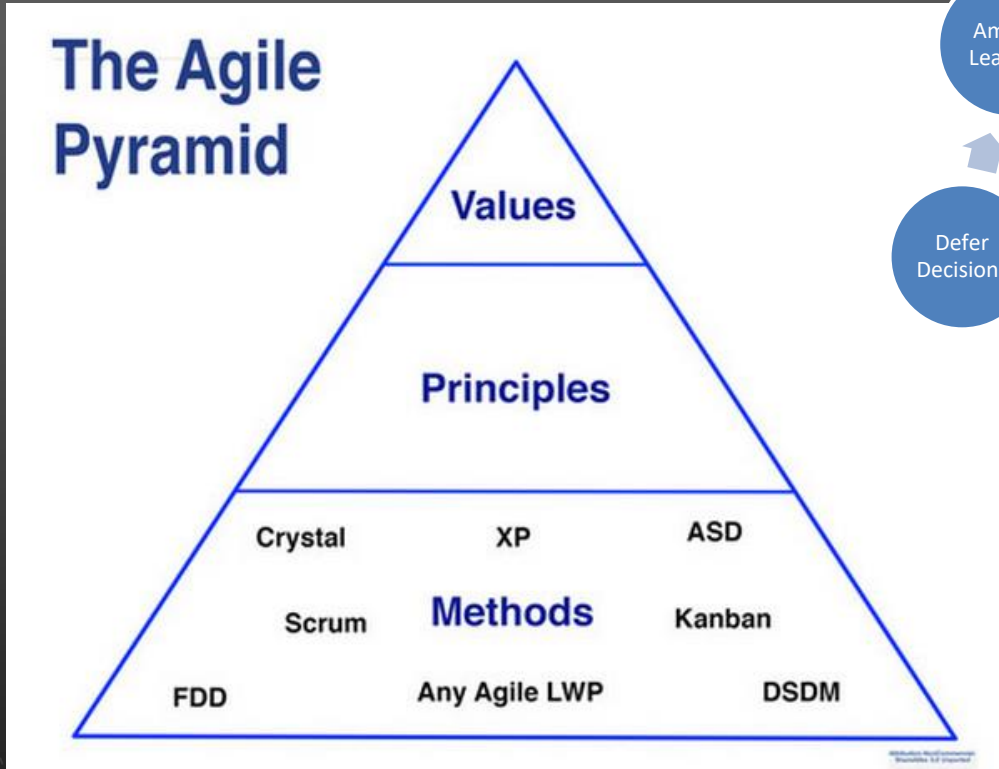


AGILE PRINCIPLES

- The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
- Working software (and sustainable) governance is the primary measure of progress.
- Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
- Continuous attention to technical excellence and good design enhances agility.
- Simplicity--the art of maximizing the amount of work not done--is essential.
- The best architectures, requirements, and designs emerge from self-organizing teams.
- At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.



THE MANY FLAVORS OF LEAN/AGILE



COMMONALITIES OF ALL AGILE/LEAN FLAVORS



- Capture the work
- Make it visible
- Minimally Viable Product (MVP)
- Engage the owner/customer/stakeholders
- Have owner prioritize the work
- Work on the highest priority work first
- Iterate
- Continually retrospect and improve



BREAKING DOWN GOVERNANCE WITHIN A PROJECT

- Stories
 - As a <role> I want <what> so that <business value>
- If not a story, include data governance as acceptance criteria in stories
 - As an accountant, I want current balances for loans, so that I can complete daily reporting
 - The system of record for loan data is defined. Known copies are identified.
 - All data elements are defined in the business dictionary.
 - An automated control is added so the current balance is automatically reconciled between the G/L and Loan System. Known stakeholders receive daily notification of success or failure of the control.

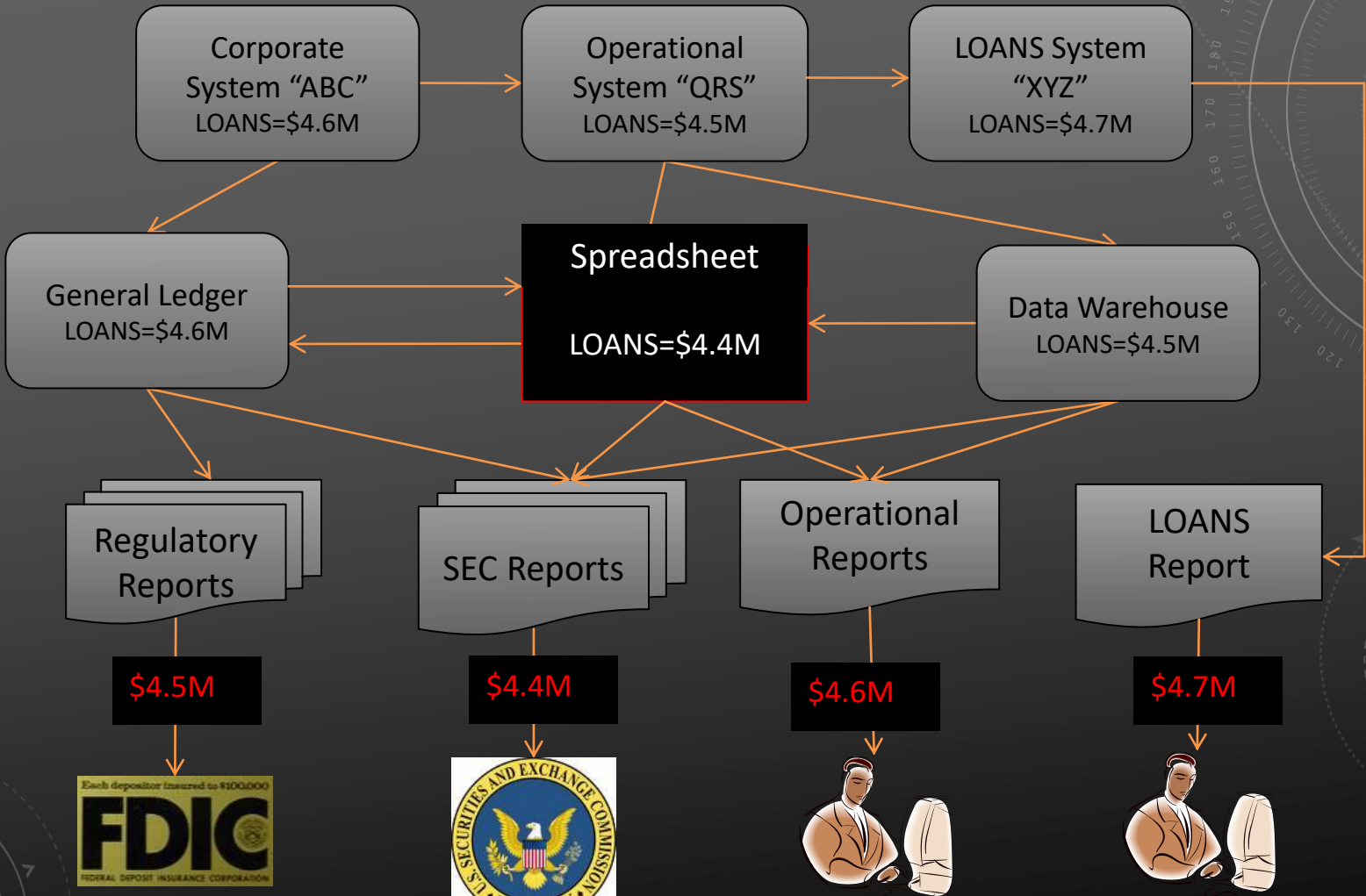
As a chief data steward I want to define governance roles for loan data so I know all governance stakeholders

As a consumer of loan data, I want to know if the loan data in the datawarehouse reconciles with the General Ledger so I do not produce incorrect reports

As a collateral analyst, I want the address associated with home loans to be valid and accurate so that when doing property value updates and verification the right information is available

As the Chief Security Officer, I want PII data related to loans protected and secure so that unauthorized users cannot access it

EXPERIENCE: ADDING GOVERNANCE TO A PROJECT



MAINTAINING AWARENESS OF SOURCE AND USE OF DATA

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LEGEND											
CONSUMER		Blue									
OWNER		Yellow									
STEWARD		Red									
CUSTODIAN		Grey									



WHAT DATA GOVERNANCE STORIES ARE NEEDED IF A NEW DATA SOURCE IS BROUGHT INTO WAREHOUSE?

- Identify data owners, steward(s), custodians, consumers
- Understand usage and source of data
- Create/update business glossary
- Profile data; get approval
- Align data with policies, security, sensitive data
- Cleansing, mapping of data so it can go into warehouse
- ALL ^^ BEFORE YOU WOULD START WRITING CODE!
- Define fields to adhere to enterprise glossary
- Update conceptual architectural and data lineage
- Get approval (separate this as a separate story as to not impede progress)
- Define metadata connections to the above
- Create Data Quality rules
- Score data based on Data Quality rules created, determine fit for purpose
- Munge data to clear out punctuation, etc.

CEREMONIES



Ceremonies	Traditional Agile/Lean Project	Establishing Data Governance Framework	Actionable Data Governance within a Project
Planning Meetings	Start of every sprint/iteration	DGSC or subgroup meetings	Start of every sprint/iteration
Scrums/Stand Ups	Daily, 15 minutes	1-3 times a week	Daily, 15 minutes
Review meetings	End of every scrum/iteration	DGSC or subgroup meetings	End of every sprint/iteration
Retrospectives	End of every sprint/iteration	End of every sprint/iteration	End of every sprint/iteration
Backlog Grooming	In the week between sprints/iterations	In between sprints/iterations	In the week between sprints/iterations



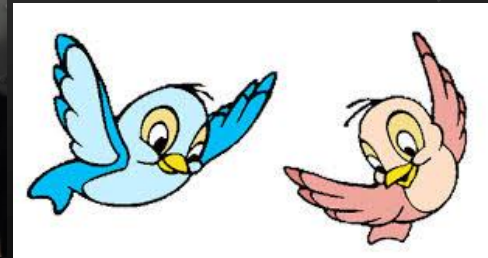
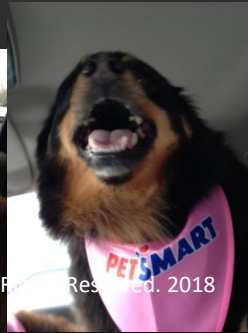
ARTIFACTS

Artifacts	Traditional Agile/Lean	Establish Data Governance Framework	Actionable Data Governance within a Project
Product Backlog	Created from conversations with stakeholders	Created from Data Governance Roadmap	Created from DG policies and procedures
Sprint/Iteration Backlog	Prioritized by product owner during planning meeting	Prioritized by DGSC chairperson during planning meeting	Prioritized by product owner during planning meeting
Stories	Created from conversations with stakeholders	Created from Data Governance Roadmap	Created from DG policies and procedures



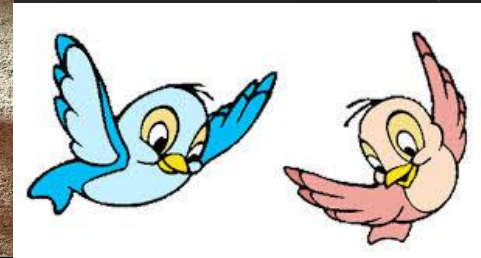
REALITY CHECK

- Agile won't magically fix everything
 - New, unexpected challenges will occur
 - Teamwork
 - Soft skills
 - Growing pains
 - Will surface ineffective processes
 - Will surface under-performing team members



REALITY CHECK

- Data Governance won't magically fix everything or be easy to quickly implement
 - Must include the business
 - Must be added to existing processes to be successful
 - Lots of training and education is needed
 - Executive support is critical
 - Data governance framework must be in place
 - Will uncover data issues that some don't want uncovered



WAYS AGILE CAN HELP

- Increased communication and visibility
- Increased teamwork
- More frequent delivery of business value
- Implement governance on high priority items first, show success, move on...continuous improvement



CONTINUOUS IMPROVEMENT

- Use retrospectives to make your process better
- It's ok to add just 1 or 2 new things at a time
- Get help if you need it, lots of resources and experts are out there
- Mentoring and coaching will be critical



LESSONS LEARNED

- There isn't one definition of Agile; all companies tend to do it differently. That's ok. Make it what works best for your organization.
- If you are setting up governance for the first time, get the Data Governance Framework in place first. Then determine low hanging fruit, such as data quality issues, and implement governance starting there.
- Data Governance MUST involve the business; it can't just be an IT focus.
- A lot of training and education is needed for governance.
- Data Governance must be added to existing processes and procedures in order to give it teeth.
 - Look at existing areas such as SDLC / Project Process, Architecture reviews, etc.



GOOD RESOURCES FOR AGILE AND TEAM BUILDING

- Mike Cohn – MountainGoatSoftware.com
- PMI-ACP Exam Prep – Mike Griffiths
- Johanna Rothman books: <http://www.jrothman.com/books/>
- The Human Side of Agile, Gil Broza
- Agile Retrospectives: Making Good Teams Great, Esther Derby and Diana Larsen
- Crucial Conversations, Kerry Patterson
- Crucial Confrontations, Kerry Patterson
- Influencer
- The Deadline: A Novel about Project Management, Tom DeMarco
- Teamwork is an Individual Skill, Christopher Avery
- Behind Closed Doors: Secrets of Great Management, Johanna Rothman and Esther Derby



EXPERIENCE

Temperature Reading

- Appreciations
- Puzzles
- Complaints with Recommendations
- Hopes and Wishes
- New Information



THANK YOU!

- Twitter: TamiLFlowers
- LinkedIn: Tami Flowers
- Email: tflowers@metagovernance.com
- Slideshare: [www.slideshare.net\tamiflowers](http://www.slideshare.net/tamiflowers)
- www.metagovernance.com



AGILE DATA GOVERNANCE

