squbea

Integration Accelerator

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Data Governance Framework

1.   Introduction

Data governance is the combination People, Process and Technology acting together on information to organize and manage its life-cycle. Mature Enterprise deploy technology and defines processes and procedures that allows their enterprise master data to be managed; classified, protected and controlled to ensure data quality.

Data governance is becoming a central role play and topic of interest both for business executives and IT. In the digital transformation age, master data quality is important than ever to understand the customer behavior and produce the right expectation. The big ERP system with multitude of use cases, invariably leads to create the leaky Governance and create serious problem with data quality – which is big barrier for efficient business processes. Effective data governance can remove these barriers and organizations can fully realize their return on technology investments.

However, establishing data governance for the sake of data governance alone is destined to fail. Executive support for a data governance program may launch an initiative but eventually, unless the program is effectively aligned with business process improvements, it will "die on the vine" due to lack of funding, lack of adoption or lack of interest.

Data Governance is a misleading term. Improvements in data quality are a primary outcome of a successful data governance program,

Data governance programs that are purely data-centric will fail.

but data quality without the context of a business process has no intrinsic value.

This paper describes the Hilhsa pragmatic approach for governance design and implementation focus on bringing incremental business value. The common elements of successful governance are combined into a generic framework to address common data governance challenges.

2.   Data Governance Challenges

Many data governance initiatives flounder as they attempt to reach consensus on the required standards for a particular data element. The governance team discovers that individual business stakeholders have different, sometimes conflicting needs for a data element. Businesses may have legal or regulatory restriction that may require them to preserve even "incorrect" information. System limitations and the prohibitive cost of modifications give rise to intentional data inconsistencies, such as creating duplicate accounts in a CRM system to handle different billing requirements.

Common Governance Challenges

Funding: Budget is difficult to secure because it can be difficult to establish a link between high-quality data and business profitability. The funding equation is further complicated as the business tries to determine "what is good enough?" Finding the sweet-spot for data quality is especially important as the cost of data quality rises in a non-linear fashion and at some point incremental gains in data quality exceed the benefit to the business.

Creating a Common Vernacular: It is impossible to establish a set of data governance requirements without a common lexicon that is agreed and used by all stakeholders. The most common terms

(Customer, Product, Partner) are the worst offenders. A data governance program must establish a set of explicit and agreed terms to avoid miscommunications.

Alienating Stakeholders: In the early stages of a data governance program, it is important to establish credibility in the program and to secure the support of business stakeholders. However, sometimes different stakeholders have conflicting views of data quality and satisfying the needs of one group may alienate others.

The White Elephant: If the data governance group limits the scope of the initiative in an attempt to avoid any stakeholder conflict, they may build something so benign that it does not fully satisfy the needs of any stakeholders and is not adopted by anyone.

Chasing Your Tail: If data is fixed in the wrong place, efforts to correct the information will be upset by downstream processes that reintroduce the problem. This "flip flop" state can leave a data governance group feeling like it is chasing its tail. Understanding how data flows throughout the enterprise is imperative to designing lasting solutions.

A Tale of Two Cities

The database department of a large insurance company measured the quality of its customer address information. The technology group was proud to publish a 98% data quality index.

The customer services team used a broad sample from the same database to measure the customer address quality. They reported a disappointing 75% data quality measurement.

So who was right? Actually, both groups were factually correct. The database team validated that each address was correctly formatted with all address elements present and a valid zip code.

On this basis, 98% of the address information was correct and any mail sent to these addresses would be successfully delivered.

The customer service group checked whether the address on file was indeed to the correct point of contact for the customer. In almost a quarter of the cases the address on file was not the preferred, current customer service location.

3.   Successful Data Governance

While data governance is certainly not easy, there are many organizations that have been successful with data governance programs. We have identified some common underlying principles from within these mature governance environments.

Principles for Successful Governance

Business Process Alignment: Data governance should be closely aligned with business process improvements so that the impact of data governance is measurable. Data governance must avoid becoming an academic backdrop to "the real work" and concentrate its efforts around areas of measurable impact.

No Pain, No Change: Unless a business process owner has a problem that they are actively trying to address, they are unlikely to embrace any change. Without support from the impacted stakeholders, data governance changes are unlikely to be adopted. In short, if it's not broken (enough) then data governance can't fix it.

Opt-In Participation: Just because a particular business process owner is experiencing enough pain to embrace change, not all business processes owners will feel the same way. Successful data governance programs do no force all stakeholders to align and agree their needs before implementing change. The best data governance programs allow stakeholders to "opt-in" to the new process or data when they are ready to do so. Opt-in participation may require additional technology support but it remains a key principle behind the most successful programs.

No Silver Bullets: Data governance is a process not a software product. There are a number of tools that support various aspects of a data governance program but data governance success is not to be found in a box.

Business Ownership: Business data is owned by the business. IT is responsible for things like storage, security, distribution, availability and other physical issues, but only the business owner can make decisions about data content. The business process owner seeking improvement should understand the governance process, decision cycle and proposed solutions to ensure that it is prepared for its role in the resulting projects.

Visibility and Measurement: Data governance impact is realized through changes to business process, technology and people. Often the business process improvement is not realized until all aspects of the data governance project are working in concert. It is critical that each aspect of the change program is measured and made available to the stakeholders to maintain support before the business process improvements are fully realized.

4.   Squbea Data Governance Framework

Squbea provides a mature framework for implementing data governance. Squbea Data Governance Framework, has evolved over time to incorporate best practices from multiple industries.

Squbea Data Governance Framework describes a mature governance process and the key supporting tools. The framework is technology agnostic, where tools are employed.

It is the concept that is important rather than any specific technology. The organizational structures within the framework are described in a generic sense to make them as transportable as possible. An organization may decide to structure the management group differently but the processes and decisions described within this white paper remain unchanged.
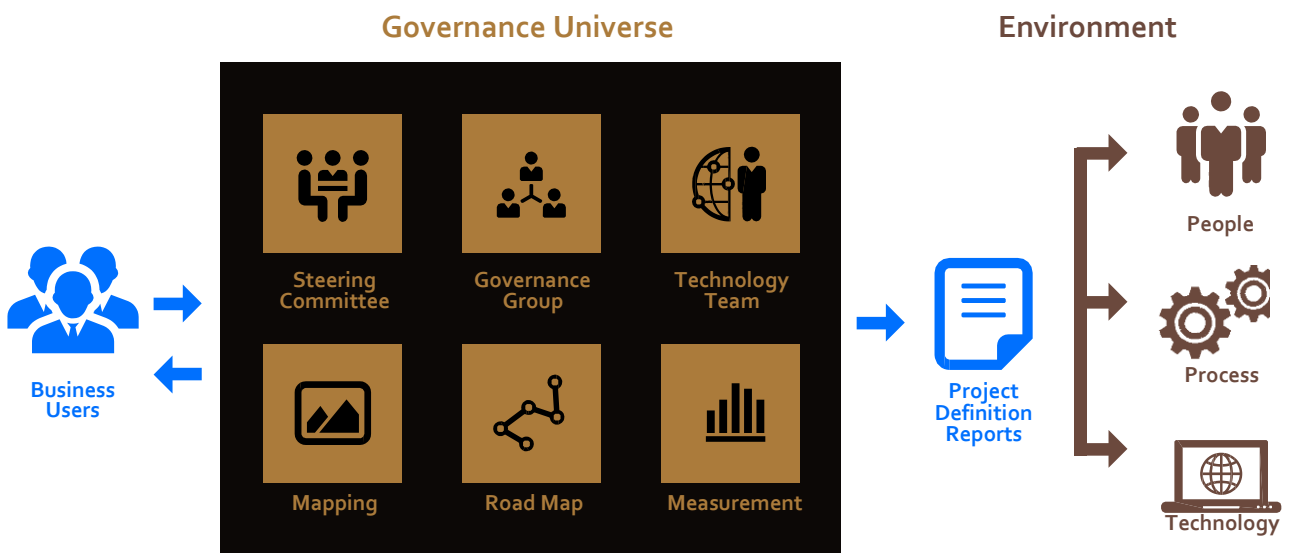

Governance Universe   **Environment**   Figure 1

Business Users

Steering Committee · Governance Group · Technology Team · Mapping · Road Map · Measurement

Project Definition Reports

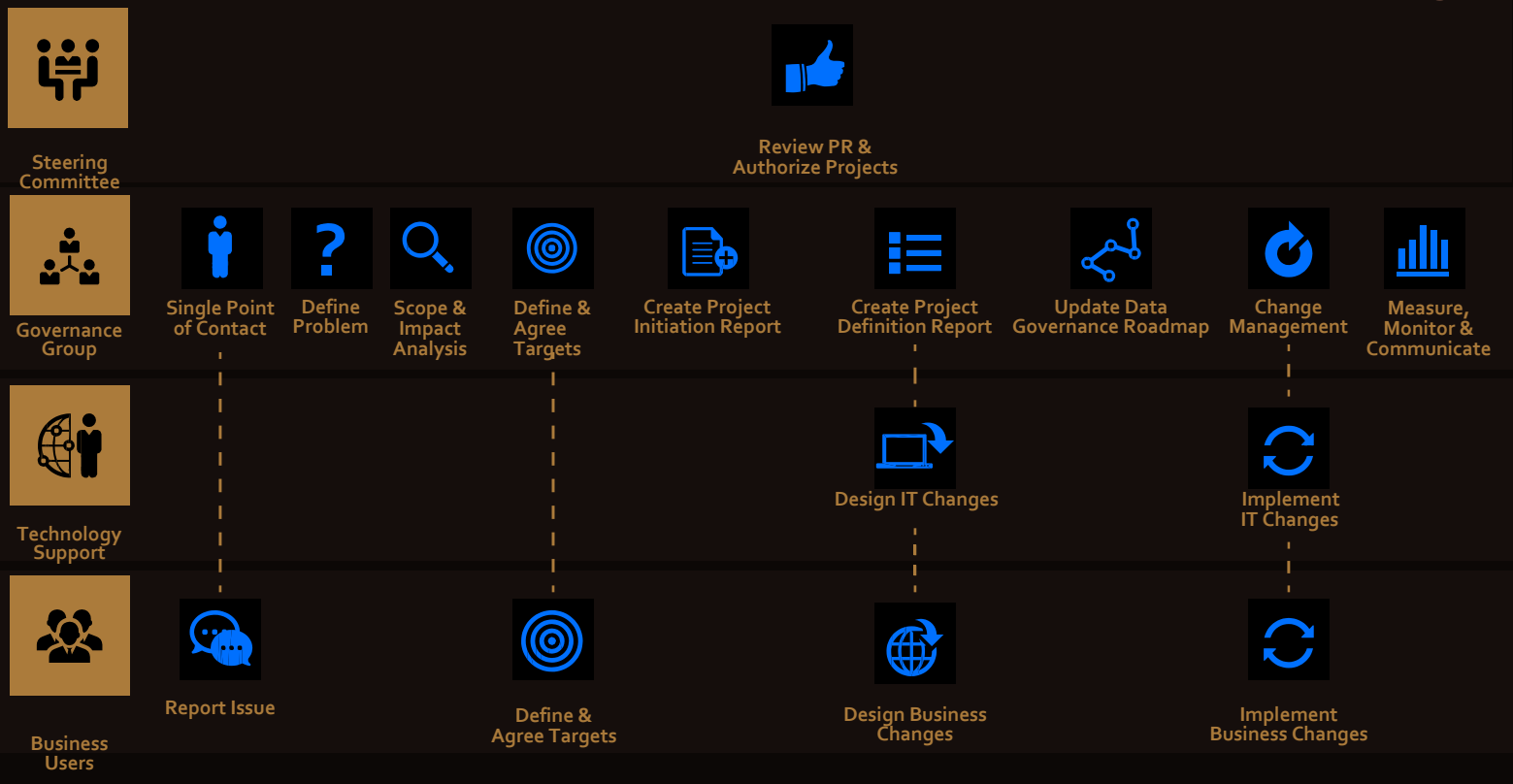People · Process · Technology

5. Squbea Data Governance Process

We will work through an example of a data governance request to demonstrate the use of the process.

Example Use Case

A software company has a high rate of bounced emails when the company sends out annual renewal notices electronically. The business complains that the email information in the customer relationship management (CRM) system is very poor.

They note that many of the emails are either not present or not in a valid format. Almost twenty percent of the renewal notices do not receive a response (either positive or negative). The business would like to initiate steps to fix email information.

Figure 2

Figure 2

Steering Committee						Review PR & Authorize Projects			
Governance Group	Single Point of Contact	Define Problem	Scope & Impact Analysis	Define & Agree Targets	Create Project Initiation Report	Create Project Definition Report	Update Data Governance Roadmap	Change Management	Measure, Monitor & Communicate
Technology Support						Design IT Changes		Implement IT Changes	
Business Users	Report Issue			Define & Agree Targets		Design Business Changes		Implement Business Changes	

Communication

The governance group should establish a primary point of communication where problems can be reported and tracked. This communication point may take the form of an intranet portal, help desk system or similar. The governance portal may be Incorporated into the internal help desk process as an escalation point for data quality related issues. It is important that the governance portal it is readily accessible, that it is responsive and that feedback is provided on a regular basis.

The most successful data governance projects are in direct response to requests from business stakeholders.

Problem Definition

Data quality problems should be described in the context of a business process. The first step for the data governance team is to separate symptom from cause and to separate business process issues from data issues. Most reported data quality problems provide little more than a starting point for a broader data governance process.

In our example, although the business has focused its complaint on poor quality email information, the failing business process driving the complaint is a poor response to annual license renewal by email. In the context of that business process, email validity is not the only potential point of failure. Additional considerations include:

i.   Prior to the email notification being transmitted to the customer, the business must identify accurate license terms for the customer and include the appropriate renewal terms and pricing.

ii.   An email communication to the customer requires a valid contact name as well as the valid email information.

iii.   Notwithstanding the validity of the name and email data, the recipient may no longer be with the target customer or may no longer be the correct point of contact at the customer.

iv.   Even if the contact data is correct and current, the email may still be rejected by the customers SPAM filters.

v.   Finally, even if the email reaches the inbox of the target, there is no guarantee that the customer will follow up on the communication.

All of these factors contribute to the success of the electronic renewal business process, describing the email renewal problem in terms of email data quality would be too limiting.

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The role of the governance team at this stage of the process is to restate the reported issue in terms of a business process improvement request. This will ensure that all of the factors are considered before corrective measures are taken. This process further ensures that expectations are calibrated along with return on investment (ROI) projections.

Scope and Impact Analysis

To understand the scope of the reported issue, the governance team must give consideration to other data involved in the business process in question - in this case: contact name, contact position, renewal date, license type and license terms.

The data governance team will likely employ some form of business process inventory and data repository to understand the scope.

Mapping the Relationship between business processes, applications and data is an invaluable governance tool. It is not necessary to have mapped the entire enterprise to begin a data governance program, but it is necessary to map the areas that you intend to govern. Figure 3 provides an example of a business process to data map.

Figure 3

Level 1 = Category	Level 2 = Process Group	Level 3 = Process	Level 4 = Activities	Account Number	Party Name 1	Party Name 2	Branch City	Store	Address Line 1	Address Line 2	PO Box	City	Region	Postal Code	Phone	Fax	Buying Group	Care Of	Email	Contact Name	Contact Title
3.0 Market and Sell Products and Services																					
	3.1 Develop marketing, distribution, and channel strategy																				
	3.2 Develop and manage sales strategy																				
	3.3 Manage advertising, pricing, and promotional activities																				
	3.4 Manage sales partners and alliances																				
	3.5 Manage sales opportunity and sales pipeline																				
	3.6 Renewals																				
		3.6.1 Electronic Renewal																			
			3.6.1.1 Send renewal email to primary contact	■																■	■
			3.6.1.2 Escalate non responses	■	■	■	■	■	■	■	■	■	■	■					■	■	■
			3.6.1.3 Process renewal																		
			3.6.1.4 Update account details	■	■	■	■	■	■	■	■	■	■	■	■		■			■	■
			3.6.1.5 Electronic shipment	■																■	■
			3.6.1.6 Update support agreements	■												■	■			■	■
		3.6.2 Key Accounts																			
		3.6.3 Channel Accounts																			
	3.7 Sales Support																				

After identifying the data in scope, the same repository can be used to find all business processes that use the in-scope data (Figure 4).

Figure 4

Level 1 = Category	Level 2 = Process Group	Level 3 = Process	Level 4 = Activities	Email	Contact Name	Contact Title
3.0 Market and Sell Products and Services						
	3.5 Manage sales opportunity and sales pipeline					
		3.5.2 Manage Customer Contacts		■	■	■
		3.5.4 Manage Account		■	■	■
	3.6 Renewals					
		3.6.1 Electronic Renewal		■	■	■
		3.6.2 Key Accounts		■	■	■
5.0 Manage Customer Service						
	5.2 Manage customer service					
		5.2.1 Manage customer requests/inquiries			■	■
		5.2.2 Manage customer complaints			■	■
		5.2.3 Initiate "Welcome Packet" Processes		■		
		5.2.6 Register for Support		■		
		5.2.9 Provide E-Business support to Sales and Customers		■		

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The analysis in Figure 4 indicates that Sales Opportunity Management, Account Management and Customer Service all use the contact name, title and email data. This information is critical; it enables the governance group to consult with all impacted business process owners before proposing any changes.

Define Targets and Agree Measures

Data quality is best defined as "fitness for use" and any measure of quality must be based around the intended use of the data. The cost of improving the quality of data rises in a non-linear fashion; perfect data is practically impossible to achieve and the cost of creating and maintaining perfect data is prohibitive. The data governance group must work with the business stakeholders to:

i.   Define the level of data quality required by their business process.

ii. Agree how the impact of improved data quality will be measured within their business process.

iii. Agree on a return on investment (ROI) model that will allow the governance group to align the cost-benefit ratio and proposed solution.

Create a Project Initiation Report

In the Squbea framework, we prescribe the use of a Project Initiation Report (PIR) that contains information on solution options, risks, costs and business impact. The PIR will be presented to the steering committee for consideration.

Data Governance Steering Committees

The data governance steering committee should have representation from all major business units and IT. The committee should have the mandate to prioritize and recommend data governance projects for funding. Project funding is typically provided by
the business process owner seeking business process improvement. The responsibilities of the steering committee are:

i.   Review project progress and results against established targets for all active areas of data governance.

ii. Review PIR's and makes funding recommendations based on enterprise priorities.

iii. Select the preferred solution approach from the options presented in the PIR.

iv. Prioritize data governance projects.

v. Recommend cancellation or modification of underperforming data governance projects.

Project Definition Report

For each project authorized by the steering committee, the governance group is responsible for creating a Project Definition Report (PDR) that describes the project. The PDR includes the solution design, resource requirements and project plan. The PDR is typically linked to the PIR for auditing purposes.

Creating the Project Definition Report is a collaborative effort with support from IT and the business. The data governance group is responsible for coordinating this effort but the design of the solution will come from the process and system owners.

Update Data Governance Roadmap

The Data Governance Roadmap (Figure 5) is the foundation of all communication between the data governance group and its sponsors and stakeholders.

This document should be organized by business process. It represents a comprehensive list of all areas under active data governance. This document is used to clearly identify business processes targeted for improvement, it documents the method ofmeasuring the business

Process and the targets agreed with stakeholders. Each business process under a data governance program is linked to a project definition report (PDR) that describes the changes that will bring about the desired results.

Performance against agreed target should be measured and visible to stakeholders. The performance metrics are most effective when published in the governance portal and linked to reported issue that initiated the action.

Figure 5

Test ID	Test	Technique	Details	Measure	Target
Electronic Subscription Renewals : PDR					
100	Did the renewal Email reach the intended contact	Email replies are identified by a RE:Our Message in the response. For all emails with no reply after 1 week pass to call center for follow up.	Call center should classify as a) Received b) Filtered c) Client Details Changed d) Incorrect Contact Details e) Incorrect License Details	% of emails received over the total sent	> 85%
105	Diagnosis of email failures.	Analyze call center reports for all follow up calls.	Publish % figures for a) Received, b) Filtered, c) Client Details Changed, d) Incorrect Contact Details, e) Incorrect License Terms over the total number of successful follow up calls.	Reason for email failure	Informational Only
110	How many primary contacts have valid email details.	Build a query in Siebel Analytics to track primary contracts with email information that meets basic email format.	Active contract managers only.	% of valid emails over the total contract manager emails	> 95%
120	How many primary contact emails bounced back?	Track the count of bounced email addresses in Activities in Siebel Call Center. Follow up bounced emails via the call center.	Call center should classify as a) Client Details Changed, b) Incorrect Details	Reason for email failures	Informational Only

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Change Management

The role of change management is frequently overlooked in transformation projects. The data governance group should have a strong competence in change management. Understanding how different stakeholders will move through the change management growth curve (Awareness - Understanding - Buy In - Ownership) at a different pace and how to support stakeholders at each stage is critical to the success of any project.

Measure, Monitor and Communicate

This is an ongoing activity for the data governance group. Once the group has a portfolio of projects under active management the communication becomes ingrained into the regular operation process of the affected business process owners.
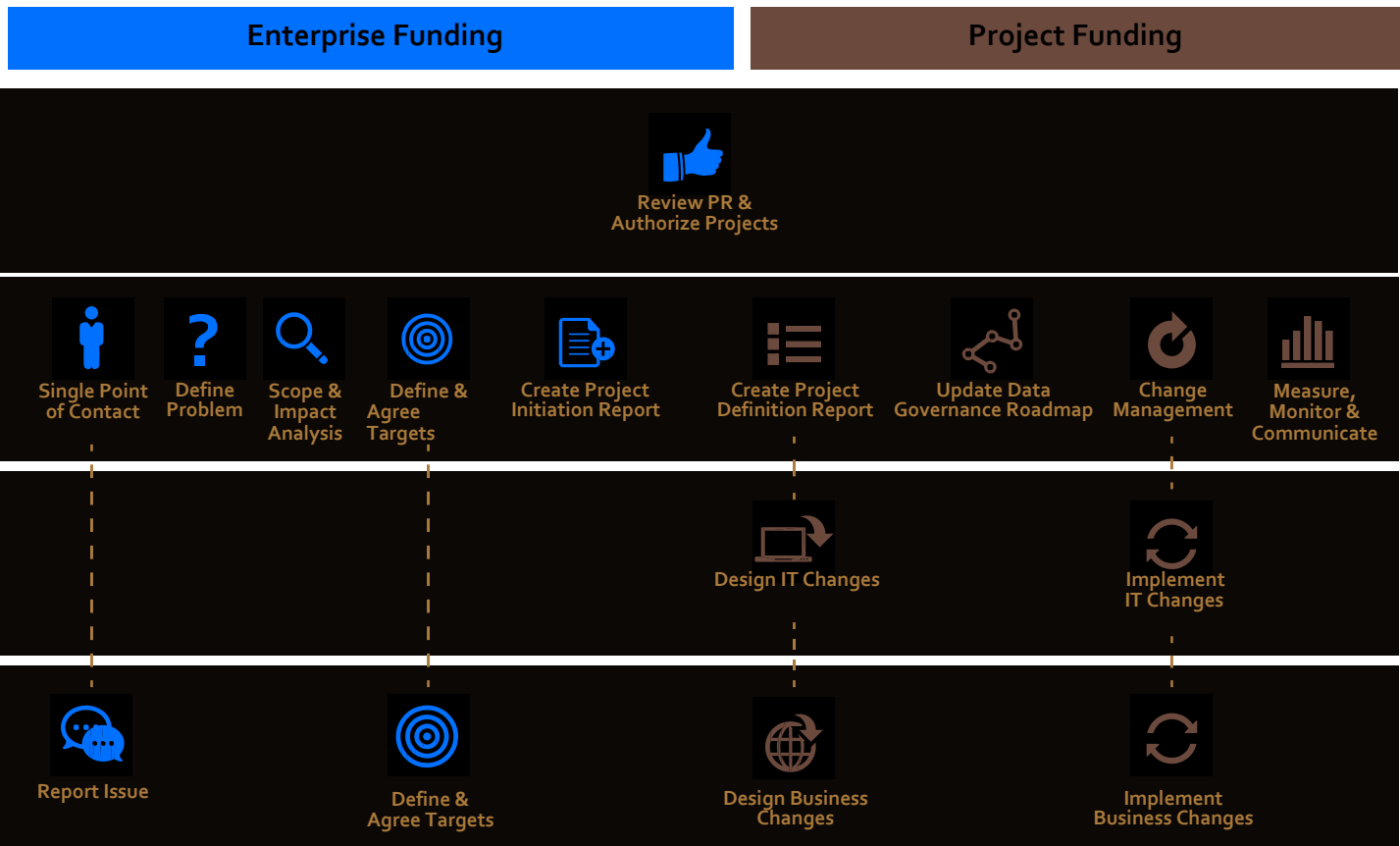
6. Funding

The governance group is typically funded at an enterprise level to support its activities up to the development of Project Initiation Reports. The steering committee authorizes projects and recommends funding based on the business case presented in the PIR. Project funding is typically provided by the business process owner seeking improvement.

The extent of enterprise funding available to the governance group will dictate the number of areas considered for active governance.

Figure 6

	Enterprise Funding					Project Funding			
Steering Committee					Review PR & Authorize Projects				
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7.   About Squbea Solutions

Squbea is an Enterprise Data Management and Integration specialist, creating value for its clients through a range of business services delivered in an on-demand commercial model. The unique Squbea approach accelerates time-to-value and minimizes the time, cost and risk inherent in data intensive initiatives. Squbea has developed Master Data Strategy and Execution Methodology with Industry experts worked to make difference for Global 2000 organizations throughout USA and world-wide.

For more information please visit

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