ConAgra Foods

2011 Data Governance Best Practice Award Submission

ConAgra Foods Incorporated

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About us:

ConAgra Foods, Inc., (NYSE: CAG) is one of North America's leading food companies, with brands in 97 percent of America's households. Consumers find *Banquet, Chef Boyardee, Egg Beaters, Healthy Choice, Hebrew National, Hunt's, Marie Callender's, Orville Redenbacher's, PAM, Peter Pan, Reddi-wip, Slim Jim, Snack Pack* and many other ConAgra Foods brands in grocery, convenience, mass merchandise and club stores. ConAgra Foods also has a strong business-to-business presence, supplying frozen potato and sweet potato products as well as other vegetable, spice and grain products to a variety of well-known restaurants, foodservice operators and commercial customers. For more information, please visit us at www.conagrafoods.com.

I.   SPONSORSHIP, PLANNING and FRAMEWORK

The program initially aligned within the IT organization. Two years later, based on a recognized need by the company's leadership, ConAgra Foods utilized a 3rd party (Accenture) to help define and structure its Data Governance Program.   An initial planning team of ConAgra Foods employees was developed to define scope and initial requirements. As a result, the Data Governance program at ConAgra Foods, known internally as the Data Management Organization (DMO), resides with in the Supply Chain part of the organization. Supply Chain handles the manufacturing, distribution and customer relationships for ConAgra Foods. Both the Data Management Organization and other internal business partners deliver the value. A formal Data Governance Committee representing a cross-section of the company's upper level leaders meets bi-monthly to help drive business and data initiatives.

ConAgra Foods has implemented a unique version of Data Governance that is based on a standard Data Governance framework, roles and scope.   It is not based on any one external approach that was brought into ConAgra Foods. However based on exposure to several other Data Governance programs, ConAgra Foods' approach contains standard technical, functional and structural elements found in most Data Governance programs.

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Our program started with a technology centric approach which has gradually moved to a business or functional approach through several strategic reorganizations.

Our initial implementation phases were as follows:

- **Approach to Data Governance** – Outlined how to gain business alignment defined scope (materials, customers, vendors, pricing) and established an organizational structure.
- **Data Owner sessions** –Created a network of more than 100 data owners/partners across business area roles and responsibilities
- **Data Cleansing** – A large cleansing and data standardization effort went into place as a means of establishing data governance value. The results of the initiative furthered business partner education on the importance of master data.
- **Data Standards and compliance** – An objective of the data governance organization implementation was to formally implement standards and compliance tools. From the data cleansing exercise, standards co-developed with the data owners and partners were developed and implemented.
- **Governance strategy and capability** – Strategically defined the actual rollout of the Data Governance Program.
- **Data technology enablement** - Developed and enhanced a set of governance tools to enable and enforce the defined governance

All levels of the company are engaged with the Data Governance program. This includes sponsorship up to and including the CEO.   The foundation of Data Governance Program at ConAgra Foods is the Data Governance Committee. This is a cross functional leadership team made up of company executives that provide direction and oversight to the Data Management Organization.   To highlight the executive level commitment, to the program the first position within the Data Management Organization at ConAgra Foods was an executive level position 'Vice President of Data Governance'.

Enterprise compliance with the program's directives are continually addressed as a strategic initiative by the highest levels of the company. The actual enforcement comes from the Data Management Organization through the implementation of the following:

- Technology based tool set that mandates and monitors compliance and data processes.

- Established Standard Operating Procedures (SOPs) for all data domains as well as various data roles.
- Established documented business procedures that provide direct instruction of how to work with data.
- Data Stewards who assist in execution, training, and enforcement of the defined standards, processes, and data ownership.

The goals of ConAgra Foods' Data Governance Program were to establish the Data Management Organization as the governing entity responsible for working with the enterprise to drive data ownership, quality and accuracy across several Data Domains through:

- Providing ConAgra Foods with the overall strategy and direction for data standards, processes, and compliance.
- Establishing the processes by which data related decisions are made and implemented.
- Positioning the Data Management Organization as the decision making body to develop data policies, standards and maintenance processes.
- Ensuring all Master Data is accurate and consistent, complete, available and secure.

There have been several recent examples of where having achieved the goals above has led to directly to the success of certain projects. Data Governance has played a significant role in the completion of an enterprise wide implementation of an ERP system. The Data Governance Organization provided clarity of data ownership, compliance to data quality standards and ongoing governance engagement which made the transition of over 40 manufacturing facilities into one enterprise system a smooth transition for ConAgra Foods.

The organization has achieved these goals and are now the core services provided to the business.

II.   BUSINESS REQUIREMENTS and BUSINESS PARTICIPATION

ConAgra Foods' business requirements for Data Governance are as follows:

- Implement data standards as defined by the Data Management Organization.
- Identify and implement continuous improvement initiatives.
- Consult with projects that may impact data.

- Address compliance and data issues (e.g., variations between systems, negative business impacts, etc).
- Work with mid-level business management to identify ways to better use the data.
- Drive consistency in data processes.
- Enable business ownership and accountability.
- Improve data quality.
- Establish data as an asset.
- Adoption of global standards for data exchange.

Data Governance Work Streams			
Data Governance	**Data Operations**	**Data Quality**	**Data Strategy**
Business Engagement Owner Engagement Guidance Data Definition Education Change Management Awareness Change Requests	Product Setup Data Maintenance Data Exchanges Tool Support Q&A	Standards and Compliance Data Cleansing Metrics Scorecards Data Audits	Project Management Process Design SAP Projects Tool Development Acquisitions-Divestitures Tool Strategy

Role standardization and business engagement occurs from the top down with clearly defined roles and responsibilities for Data Governance including the Data Governance Committee, the Data Manager, Data Owners and Data Partners.

The Data Governance Committee is a cross functional leadership team providing direction and oversight to the Data Management Organization. The role of the Data Governance Committee members is to set objectives and strategic direction, certify data governance outcomes and monitor and measure results.

Data Managers are a Data Governance function assigned to each data domain (Finished Good Materials, Customer, Pricing, Vendor and Non-Finished Goods). These mangers are the established point of contact to bring data issues and requests through the governance process and are responsible for data quality, compliance with standards/policies, business representation, issue resolution and data requests.

Data Owners are the business users that provide input to data standards and ensure data quality and compliance. In some cases ownership is established down to the data field level. Data owners, much like the Data Managers, are responsible for the following for data quality, compliance with standards/policies and business function representation for communication issue resolution and data requests.

Data partners are the internal business partners who are impacted directly by certain data and are responsible for collaboration and communication with the requesting entities.

Data Producers and Consumers are all levels and roles within ConAgra Foods are engaged with Data Governance. Data and the impact of data are now a part of the business conversations at ConAgra Foods

and engagement with data governance is initiated by both the Data Governance Program as well as other internal business functions.
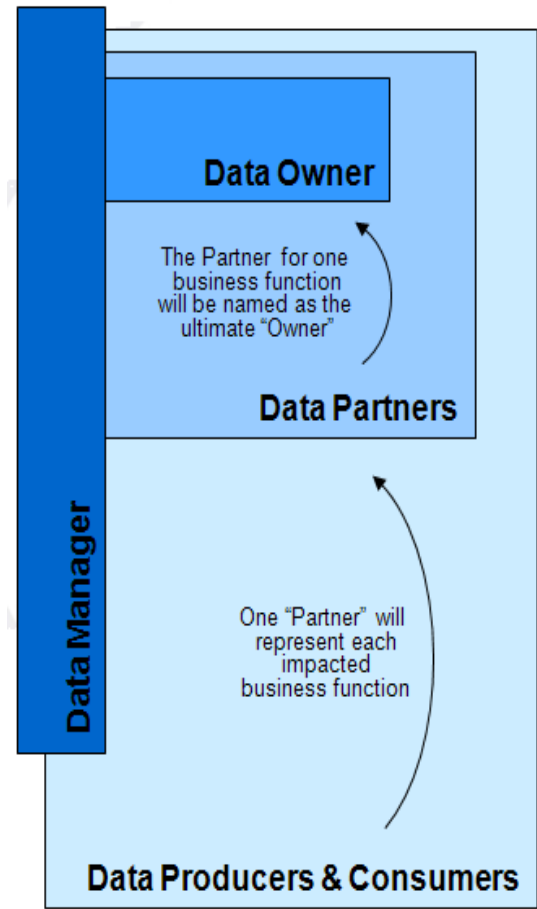
      The process for requirements gathering at ConAgra Foods was established by several sub-committees of the main Data Governance Committee, the central business group overseeing the Data Governance program. Members of the Sub Committee include the company's leadership team, IT resources and other internal business stakeholders. Specific requirements were assigned to individual teams that manage specific areas of the business and their related Master Data needs.

      Currently the Data Management Organization does much of the ongoing requirements gathering as well as identifies the strategic opportunities. The Data Governance Committee role is more inform/consent as it relates to new initiatives.

III.   DATA GOVERNANCE PROGRAM STRUCTURE

The Data Management Organization is functionally organized by traditional Master Data Domains (Finished Goods Materials, Vendors, Pricing, Customers, Finance and Non-Finished Goods) with several roles associated with each of those domains. There are six (6) core data management teams made up of thirty-five (35) team members that manage the day-to-day operations of ConAgra Foods' Data Governance Program. There are several functional levels within the Data Management Organization:

Operational – Master Data Coordinators are responsible for the day-to-day input and maintenance of ConAgra Foods' Master Data. They provide the compliance checks and insure that only quality data is placed within our ERP systems.

Tactical – Master Data Analysts provide the analytical base for troubleshooting data issues as well as ensuring compliance and adherence to processes with various business partners. They handle day-to-day data requests and troubleshoot and resolve data issues. Additionally, they are responsible to compile required data related to the creation and maintenance of specific data objects under each domain.

Strategic – Managers and Directors of Data Governance provide oversight for the current governance processes and ensure alignment with data owners on various types of initiatives. They are generally responsible for the data within each of the respective domains. This level of leadership determines and approves actions for improvement as well as prioritization of activities. They represent business needs, mediate conflicts and are responsible for compliance to Data Governance policies.

Executive – Vice President of Data Governance is the executive leader of the Data Management Organization which sets the organization's overall strategic direction and represents the Data Management Organization within the Data Governance Committee.

Data Management Organization Structure
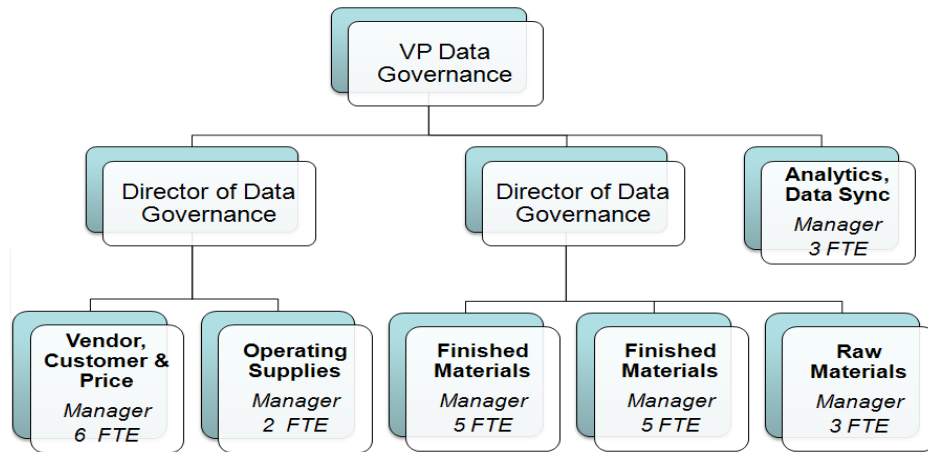
ConAgra Foods' Data Governance Program uses several tools to enable the various governance processes. The tools monitor and ensure compliance with the program's policies and data standards.   The data maintenance/workflow tools allow business resources to gather and stage master data elements in order to create data objects in SAP. Over fifty (50) different workflow scenarios gather and consolidate data from various data owners across the company via workflow and perform the actual updates to the ERPs.
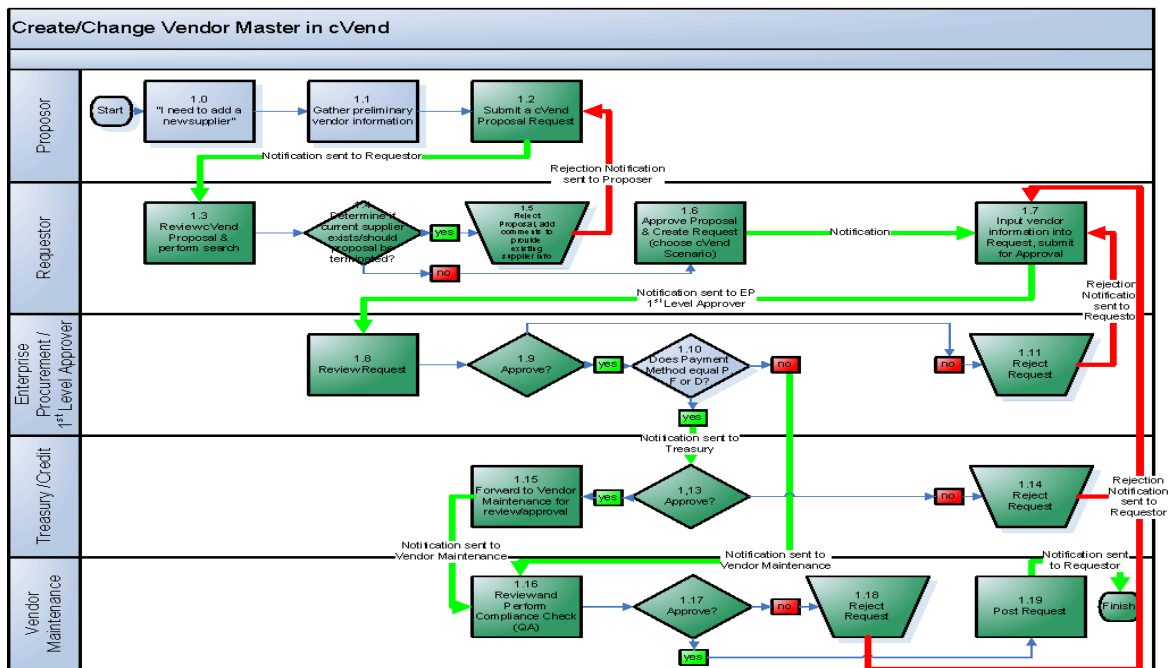
Example of Workflow for creating or changing vendor master records.

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In addition, ConAgra Foods has implemented a quality monitoring tool set which provides exception reporting to identify data inconsistencies and gaps in Master Data. This reporting is used across all data domains and is the basis for our quality metric scorecards.   The monitoring tool set also contains dashboard views which provide an overall quality assessment at the data object level. Currently, there are over one hundred (100) quality reports which monitor master data elements.

Metadata for individual data fields is maintained within the ERP and contains basic descriptions and usage.   Each data domain (Data Governance Manager) maintains a set of data flow diagrams and ownership matrices for each data object. The layouts identify the touch-points in the various master data create and change scenarios as well as the persons responsible for execution and approval.   In addition, each domain maintains a set of data and business rules containing dependencies, defaults and calculations for critical fields within each data object. Focus is placed on the elements that are deemed most critical to our various business transactions.

ConAgra Foods' program contains several data management and business resources that monitor data quality. Data quality monitoring is a part of the day-to-day work performed by the various teams. The Data Management Organization maintains Service Level Agreements (SLAs) for all monitored quality issues. In addition, each data domain maintains Standard Operating Procedures (SOPs) and operational instructions that define rules around data validation. As our ERP (SAP) implementation continues, significant effort is spent analyzing and cleaning up data prior to being brought into the ERP.   Our quality dashboard highlights issues around the accuracy and completeness of data for different data objects.   The Data Management Organization reports weekly on all critical data validation rules and consolidates quality reporting into several key categories of compliance by area of responsibility.

Finished Product Data Quality Dashboard

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As The Data Management Organization has matured, it has been asked to assist in the reporting and management of several business initiatives. As the importance of data becomes more understood, the Data Management Organization has become a vital business partner. Some examples include:

- Procurement processes monitoring.
- New product innovation initiatives are data compliant.
- Standardization of manufacturing supplies across 40+ manufacturing facilities.
- Data Synchronization with external customers (retailers).
- 100% accurate product data as measured by key customers

The Data Management Organization produces a weekly quality scorecard/metrics that provide trending on all critical data validation rules.

Business Area & Report Name	Critical	Trend	FY10 5/30/	FY11 Q1 8/29/	FY11 Q2 11/28/	FY11 Q3 2/27/	FY11 P08 3/13/	FY11 P08 3/20/	FY11 P08 3/27/	FY11 P09 4/3/
DMO Owned			26	72	27	194	91	630	318	78
Indirect Materials			0	0	0	0	1	1	0	0
Purchased Materials without a Purchasing View	Low		0	0	0	0	1	1	0	0
Direct Materials			0	2	0	0	0	2	0	0
Active Raw and Semi-Finished Materials Flagged for Deletion	Medium		0	0	0	0	0	0	0	0
Semi-finished Materials without APO Data	Medium					0	0	0	0	0
Direct Material Missing Sales Org	Medium		0	2	0	0	0	2	0	0
Vendor Reports			0	0	16	19	31	333	8	26
Simple Vendor Multiple Partners	Medium		0	0	0	0	0	0	0	0
Simple Vendor Partner Data discrepancies	Medium		0	0	6	2	0	9	0	0
Inaccurate Vendor Reconciliation Account	Low		0	0	0	0	0	0	0	0
Vendor Not Setup in CoCode or PurOrg 1015	Medium		0	0	0	0	0	309	0	0
Leading Invalid Characters	Medium		0	0	0	3	0	0	0	0
Missing Messaging Conditions	Low		0	0	4	9	6	9	5	20
Vendor Orphaned Children OA/PI	High		0	0	6	5	25	6	3	6
Finished Goods			26	70	11	175	59	294	310	52
Blank Producing Plant	Low		0	0	0	0	0	0	0	0
Comp Prefix GTIN Errors Branded Only	High		0	9	0	1	0	0	0	0
CSUDiscrepancy	High		7	2	2	17	10	12	32	10
FG Material Without BatchMgmt Indicator Ckd	High		0	0	0	0	0	0	0	0

Weekly Data Quality Trends (tracking of individual data errors)

IV.   PEOPLE PROGRAM TEAM and the DATA GOVERNANCE ROLES

The Data Management Organization also maintains several touch points to most areas within Supply Chain as well as Sales, Marketing and IT.   The Data Management Organization

has an extensive reach and accessibility into any part of the organization and is recognized as the point of contact for Master Data. Their various roles are as follows:

- **The Data Management Organization –** Thirty-Five (35) people directly responsible for Data Governance.
- **Data Owners –** Users of the data who provide business input to data standards and ensure data quality and compliance. Approximately thirty (30) persons. For approximately half of these people Data Governance activities are their primary job function.
- **Technical –** Approximately fifty (50) people that support the various functions for the organization's technology based tool set or directly provide technical support for the various Data Objects.
- **Support -** There are numerous committees (Brand Committees, Steering Committees, Review Boards, etc). The memberships of these are in the hundreds of people. In addition, support for the program is achieved by maintaining tight alignment with both the technical (IT) and Business Project Management Offices within ConAgra Foods.

The base of ConAgra Foods' Data Governance program is all of ConAgra Foods' employees. ConAgra Foods' full population of employees creates, submits, enters, views, reports and uses data and thus provides the basis upon which the rest of the program is built. There is a real organizational focus on data, data quality and the impacts of data on business processes.

The most value from the data governance program relates to data quality. Data issues no longer impede ConAgra Foods' ability to conduct business. Some specific examples include:

- Increased transactional effectiveness with more automation and increased efficiency of daily business transactions.
- Smoother new product launches and less changes to data after launch.
- Improved Data Synchronization with our customers specifically increased dimensional accuracy.
- Increased quality of suppliers (vendors) due to better accountability of data inputs.
- Better costing forecast data has increased our ability to accurately assess the costs within the manufacturing process.

In addition the Data Management Program relies on the methodology outlined in the Data Quality Continuum. This method of Identifying and resolving data quality issues ensures that root causes are resolved and that data quality processes can change with shifting business needs.

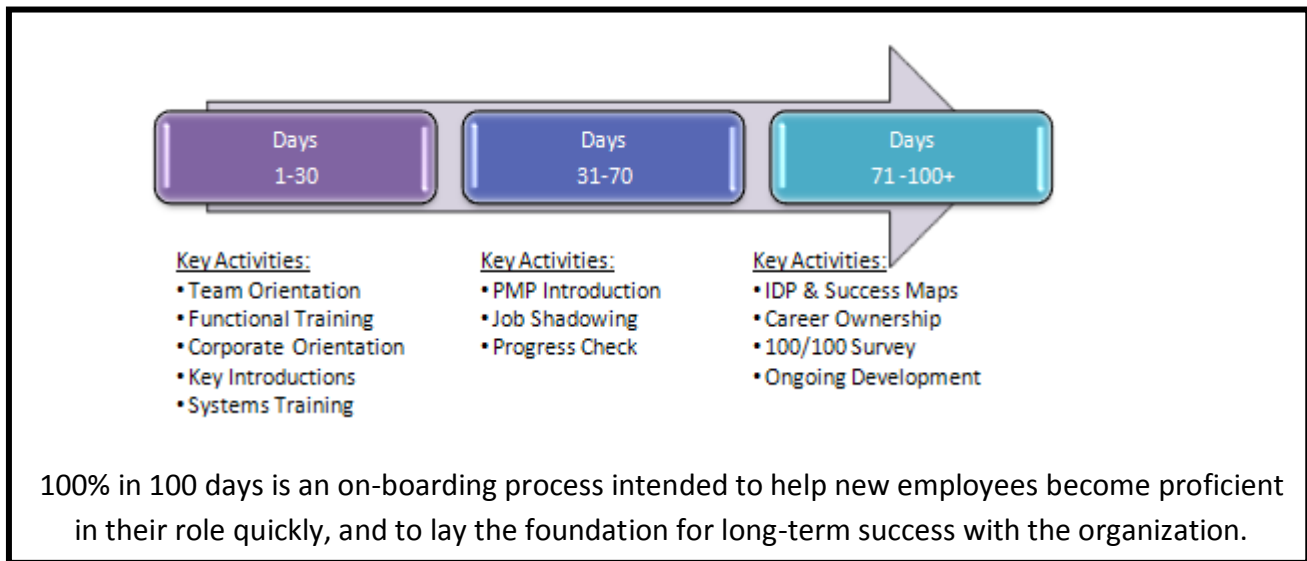*ConAgra Foods Data Quality Continuum*
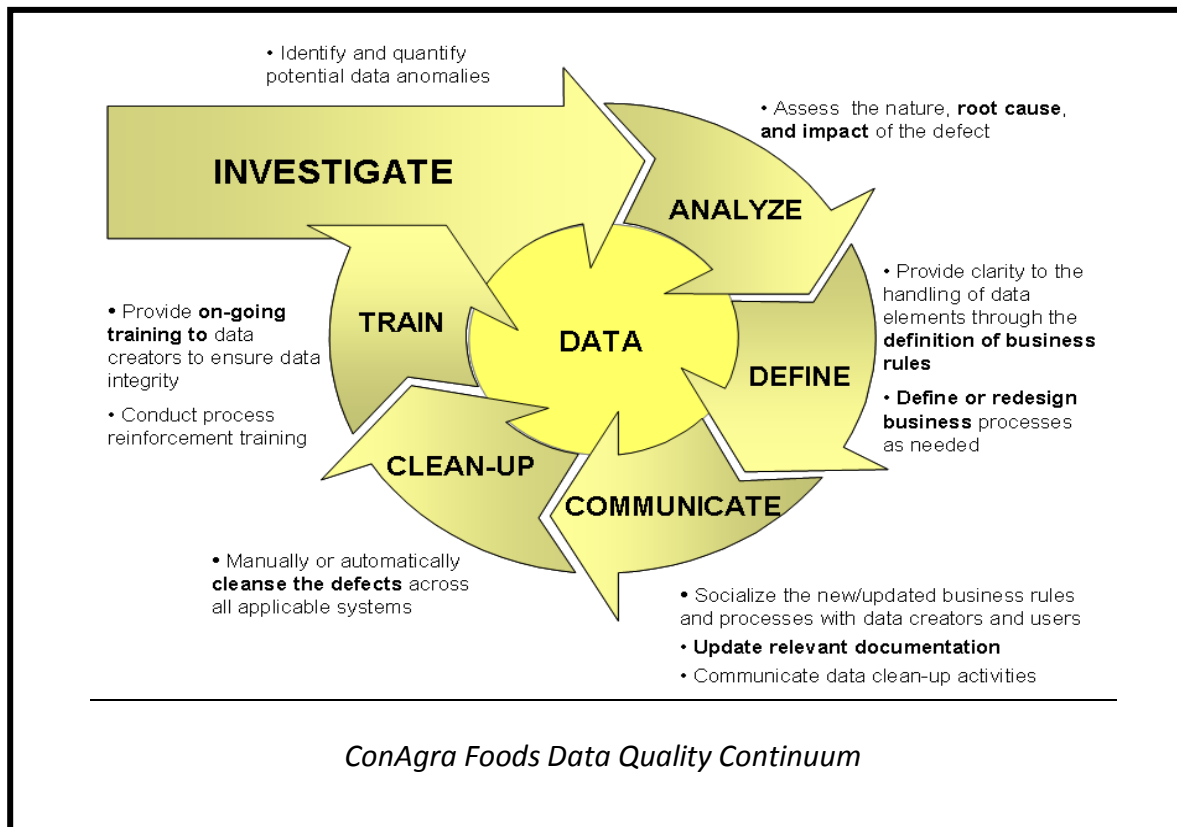
Currently, there is very little marketing required as the program is fully established and realized. However, several types of on-boarding materials are maintained for new data owners. Overall, little time is spent on internal education or marketing outside regular training sessions associated with the governance tools.

New associates are on boarded through a program of obtaining 100% proficient within 100 days of hire. Employees are trained on various governance processes using training courses that can be accessed on demand.   Through the ConAgra Foods' internal portal all employees can access high level workflows, standard operating procedures and operational instructions as well as a variety of scenario-based training for all critical procedures and data element related functions.   The Data Management Organization also runs bi-weekly 'live' training sessions referred to as 'Brown Bags' (over lunch hour) during which a series of roughly

15 Master Data topics and processes are cycled through.   The Data Management Organization also maintains robust RACI (Responsible, Accountable, Consult, and Inform) matrices and job descriptions for the various master data roles.

Days 1-30	Days 31-70	Days 71-100+
Key Activities: • Team Orientation • Functional Training • Corporate Orientation • Key Introductions • Systems Training	Key Activities: • PMP Introduction • Job Shadowing • Progress Check	Key Activities: • IDP & Success Maps • Career Ownership • 100/100 Survey • Ongoing Development

100% in 100 days is an on-boarding process intended to help new employees become proficient in their role quickly, and to lay the foundation for long-term success with the organization.

V.   MEASUREMENTS PROGRAM and SUCCESS STORIES

ConAgra Foods helps drive its governance agenda by engaging the organization through effective reporting that connects data to back to specific business objectives or priorities. The Data Management Organization currently produces over twenty (20) scorecards and metric reports that describe various business processes that are data-dependent. This reporting is an effective tool that helps the company's leadership makes connections between data quality and business objectives.

- A weekly quality scorecard/metrics provide trending on all critical data validation rules as well as consolidates quality reporting by area responsibility.
- Monthly scorecards monitoring various data governance processes including data volume (how many objects), adherence to service level agreements and monitoring of specific initiatives (i.e. Data Cleanup).

- An overall data landscape report where company leadership can view trends around (and gain appreciation) of total volume of data objects, executed changes against data objects and overall quality of the Data Domain.
- Monthly scorecards to business partners/areas (Supply Planning, RQI, Manufacturing, Procurement, etc ….) which report on specific topics or areas of interest to each area.

The value of the program is not evaluated in financial terms but more by the lack of business interruptions related to data issues. However, the program does track efficiencies gained in processing times around data elements. It also examines various inefficiencies such as 'loose case picks' or 'deductions' and investigates any Master Data effects to those.