

# Data Quality Framework

Our broad offering helps to determine that Data Quality is a continuing process and supports your strategic and tactical goals

## The Business Case for Data Quality

Organizations of various sizes and industries are recognizing the importance of high-quality data and the critical role of data quality in information governance and stewardship driven by broader enterprise information management initiatives<sup>1</sup>. Without the assessment and monitoring of your data quality, unpleasant or even devastating consequences can follow. Deloitte has a broad experience when it comes to data quality. Analyzing risks and consequences can lead to valuable winnings in just a few steps.

1. Gartner, Inc.

## Common Culprits of Bad Data Quality

### Architecture and Application Complexity

With today's complicated integration architecture it is very difficult to track how changes to a system filters through and affects the others. Multiple, overlapping applications – often with non-integrated data sources can create a data environment highly susceptible to bad data quality.

### Lack of ownership and responsibility for data quality

Without ownership of data quality at each integration point, there is a potential for assuming good data quality when in reality it is very poor.

### Repetitive or ambiguous business processes

Repetitive or ambiguous business processes can create redundancy in how data quality is addressed, often resulting in data quality conflicts.

### Unclear and multiple definitions of data elements

Mismatched syntax, formats, and structure from disparate data sources require consistent definitions of data elements to ensure clear mappings across the enterprise

### No clearly defined data quality escalation processes

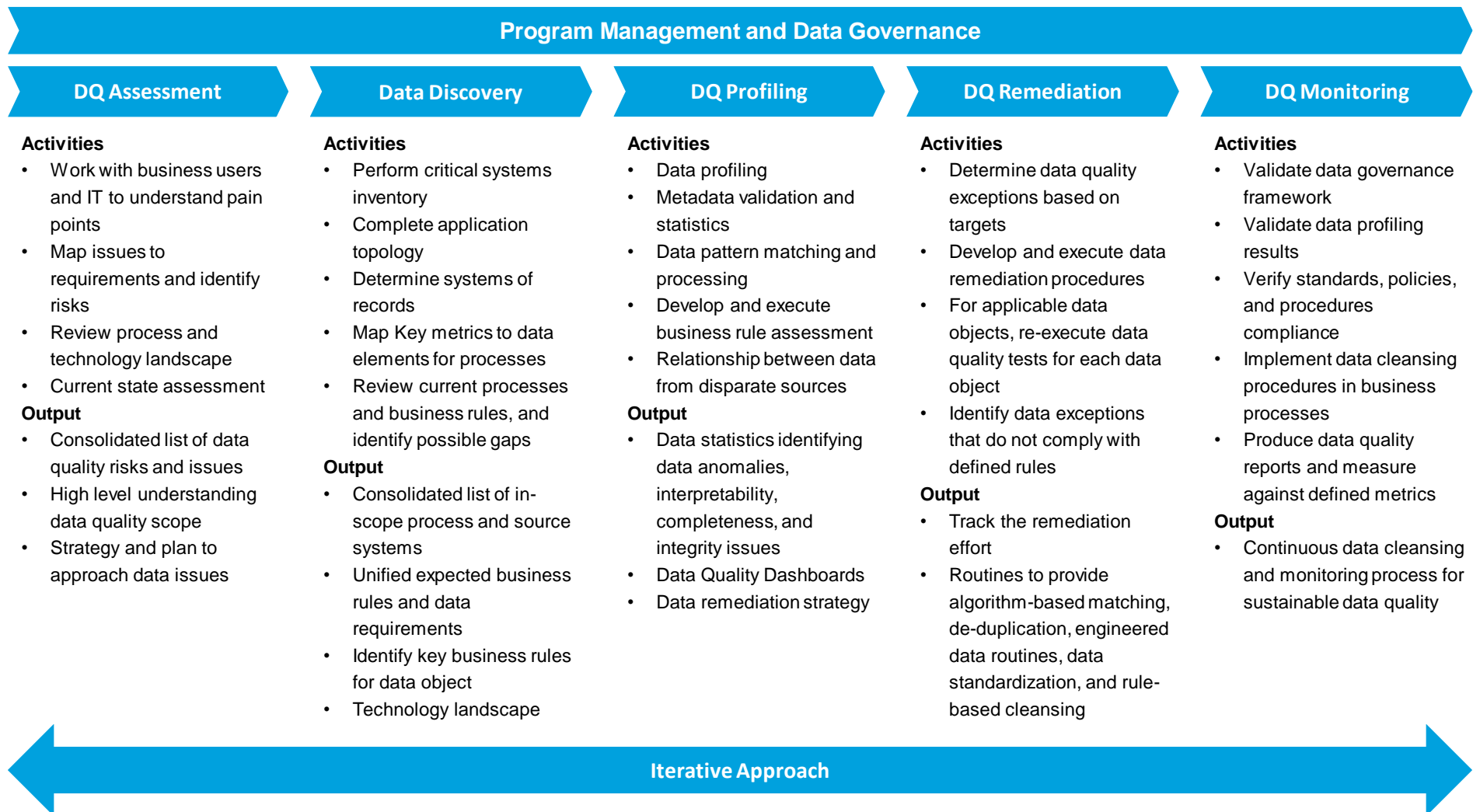
Without clearly defined data quality escalation processes, known data quality issues may never be addressed.

## Consequences of Bad Data Quality

- Lack of real-time process execution and access to the enterprise data
- High cost of managing data caused by inefficiency and redundancy of data
- Inaccurate data element information results in wrong and irrelevant data deliveries
- Inaccessible data can make even basic business questions difficult to answer
- Manually-intensive activities, and error-prone data integration processes
- Data privacy and security compliances are not met
- Unclear and multiple definitions of data elements

## What is Deloitte's Data Quality Framework?

Deloitte's Data Quality (DQ) framework is designed to assess the data risks and data health, to analyze and provide insights into the root causes of poor data quality and to provide appropriate remediation recommendations to enhance data standardization activities. Data quality monitoring is performed on an ongoing basis to ensure sustainable data quality.



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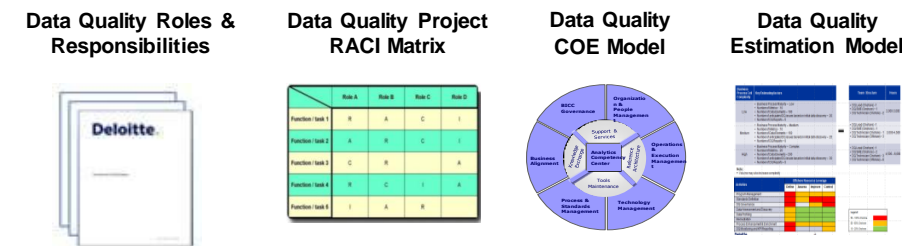
## Data Quality Framework – Accelerators and Offerings

Leverage our prebuilt solutions to enable your data quality needs in less time and with less cost

### DQ Assessment and Governance

#### Accelerators and Tools

For DQ assessment and discovery phase we would utilize our various accelerators to increase speed of delivery



### Data Monitoring

#### Data Quality Executive Dashboard

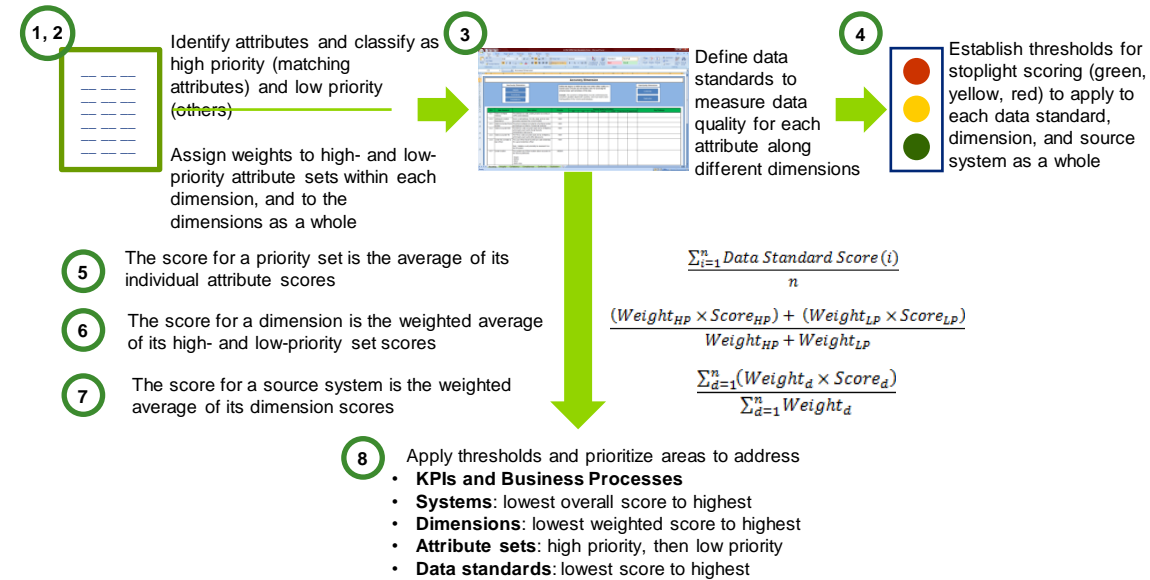
Data Quality remediation can be tracked through a feedback loop to the Data Quality Dashboard leveraging issue management and resolution framework



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### DQ Profiling

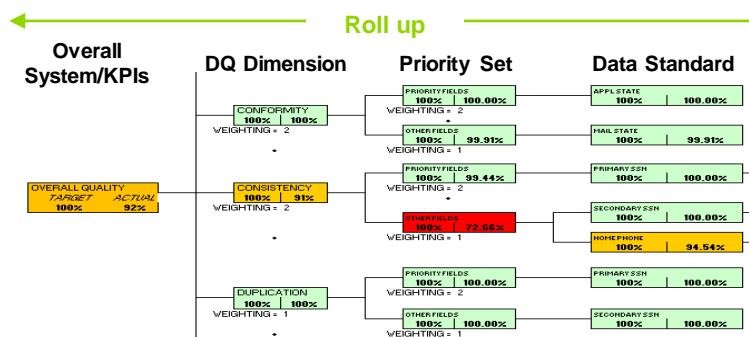
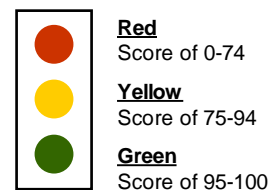
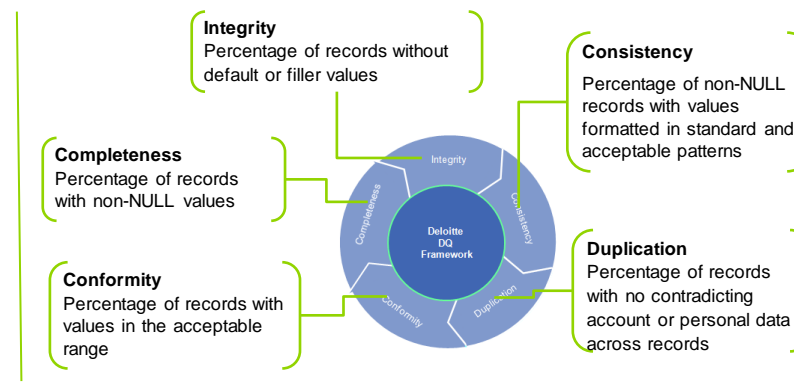
#### Weighted Average approach to formulate metrics



### Enterprise Data Quality Scorecard

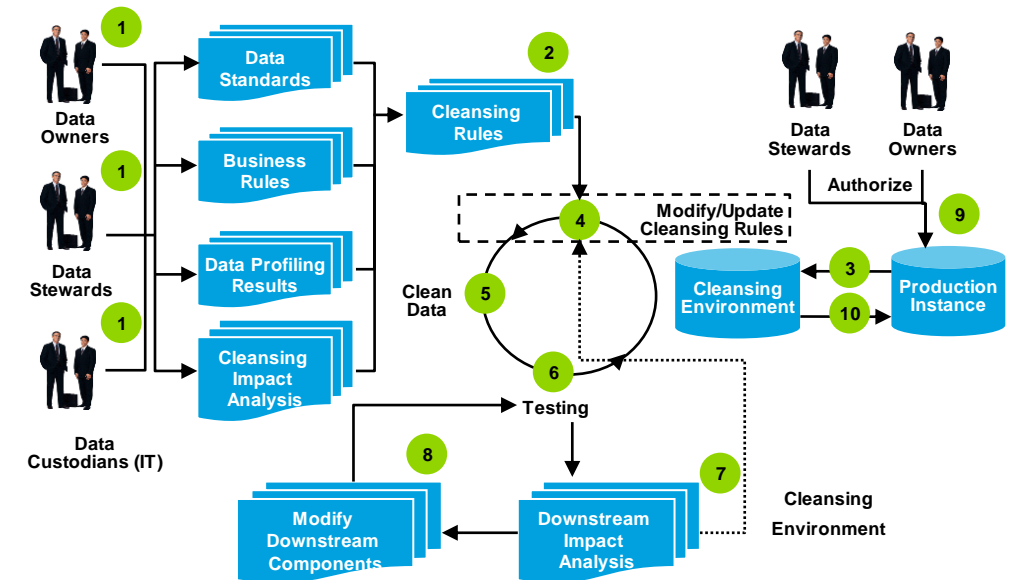
#### Weighted Score Card

- A methodical approach will be applied to formulate metrics for key attributes, DQ dimensions, and source systems
- Weighting system drives allocation of values to data quality dimensions and attribute sets
- Scores are rolled bottom up
- Criticality of each data quality dimensions and default values are determined based on business requirements



### DQ Remediation

#### Data Cleansing Approach



- 1 Data owners, data stewards, and data custodians are identified .
- 2 Cleansing rules are developed using the following inputs — Data standards, business rules, data profiling results and the cleansing impact analysis.
- 3 An extract of production is loaded in the cleansing environment as a means to create as little impact as possible to production.
- 4 Cleansing rules are modified/updated based on the initial analysis, testing, and the downstream impact analysis.
- 5 The data is cleansed in a sandbox environment using the rules defined in step 2.
- 6 Testing is performed on the cleansed data and all downstream components.
- 7 Analysis of cleansed data on downstream applications is performed.
- 8 Applicable downstream components are modified using results from step 7.
- 9 Data owners and data stewards authorize the move of data back to production.
- 10 Clean data is then migrated back to production for use.

### Take Action

Do you have questions or comments about how Deloitte can help you with your Data Quality issues?

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