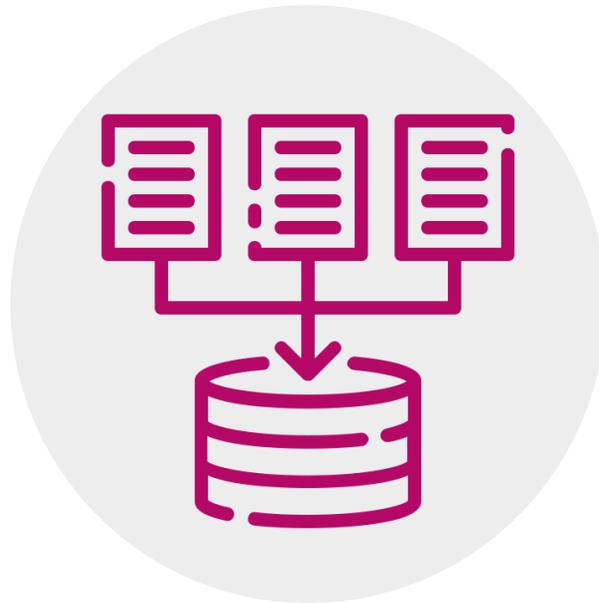


Improving Data Quality

Data is one of your most valuable assets



Data is one of the most valuable assets a business can possess and can have a significant impact on competitive advantage. The use of analytics is also no longer limited to large companies with substantial budgets but is a widespread tool used across organisations - regardless of size and type - in the new knowledge economy.

An assumption underlying the value of data and the ability to derive insights from it is that the data itself is reliable and trustworthy. In other words, that it is of high quality.



No. 1 data challenge

data quality

Studies globally indicate that only a small fraction of organisations are extracting the full potential of their data. This can be due to several reasons (including how data is stored), but the number one challenge is poor trust in the data. A lack of confidence in the data on which analytics is based creates a barrier to achieving insights.

A 2020 study from the Harvard Business Review* discovered that data quality is far worse than most companies realise, saying that a mere 3% of the data quality scores in the study were rated as "acceptable." Our own recent survey of Australian organisations' data-related challenges also revealed data quality as a top concern.

**'To Improve Data Quality, Start at the Source' by Thomas C. Redman, HBR, February 10, 2020*

How can I improve the quality of my data?

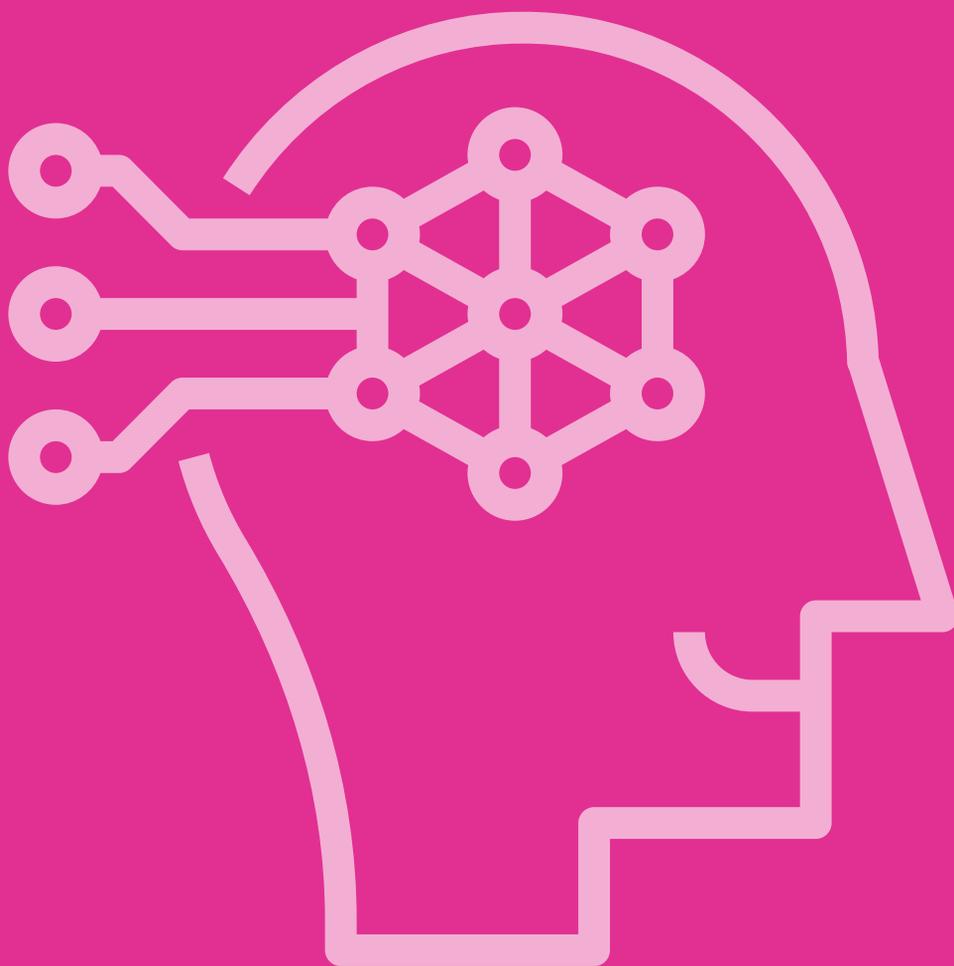


Organisations aware of a data quality issue may spend time and resources cleaning their data and installing software to find errors automatically. However, unless remediated at the source, data quality issues will be perpetual.

Organisations that realise the greatest results from their data and analytics efforts are those that have implemented enterprise-wide approaches to establishing and maintaining quality data.

We advocate taking a holistic, enterprise-approach to data quality. Our experience extends to helping numerous organisations across different sectors including healthcare, higher education, government and commercial improve their management of data and information.





What you will learn in this ebook

We outline our tried and tested approach for improving data quality. We show you how to build confidence in data and analytics reporting and insights through a robust data quality program. We outline a holistic, not just technically focused, approach to enhancing data quality - ensuring that data is fit-for-purpose and aligns to your business outcomes.

What can you expect?

When delivered in full, this approach will allow you to move forward with the confidence to:



understand your organisation's data requirements



understand the current quality of your data



understand the key aspects needed to maintain good quality data



achieve the buy-in you'll need from executive stakeholders to sponsor the remediation activity and initiatives to monitor and improve data quality into the future

Summary

Key steps to improving data quality

This ebook will take you through the key steps to improving data quality.

In summary, the steps involve:

1

Establishing your data quality objectives

2

Define minimum data quality requirements

3

Defining a data quality framework

4

Assessing the quality of your data

5

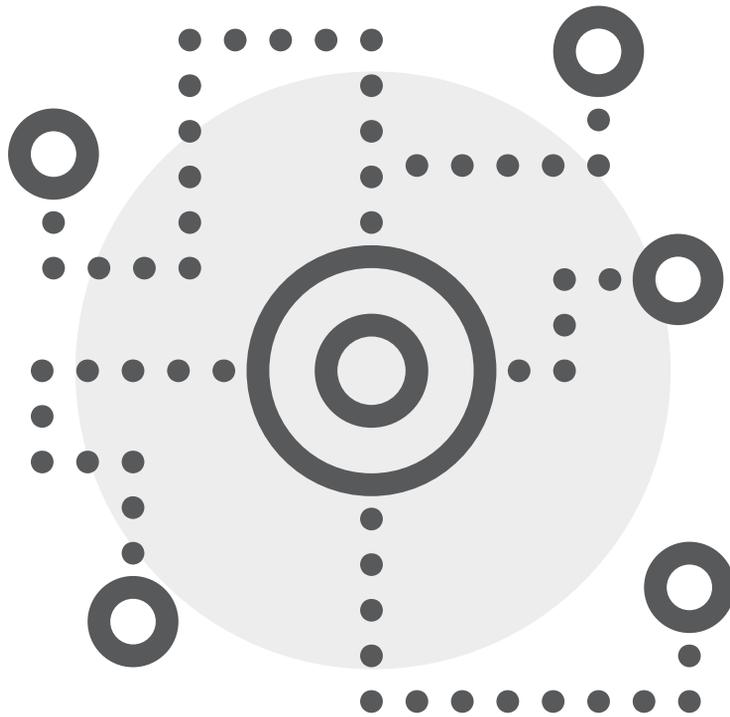
Define the level of remediation required and develop an improvement plan

6

Implementing your data quality program to deliver results

The key steps to improving data quality

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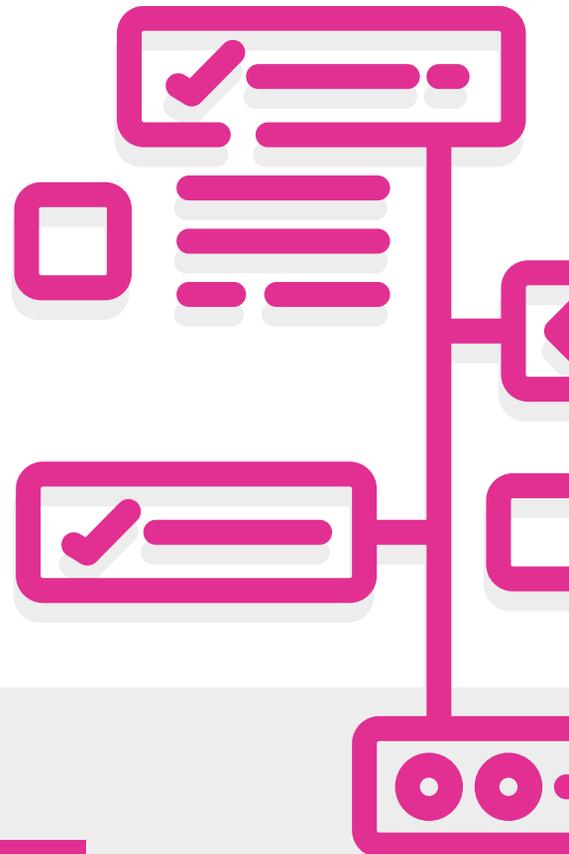


Step 1

Establish your data quality objectives

Engage your internal stakeholders to understand the key drivers for data quality improvement and articulate the desired business outcomes. This enables you to establish business rules for each data type.

This step helps you to establish a shared understanding of the business requirements for quality data.



Actions for Step 1:



Engage key stakeholders to understand the required level of quality to meet your reporting and other business requirements.

Step 2

Define minimum data quality requirements



Data is rarely 100% perfect and does not usually need to be to get value from it. Additionally, not all data types require the same level of quality to be fit for the purpose the data is being used for.

The key is to understand the minimum data quality requirements for specific use cases within your organisation.



Actions for Step 2:

Define minimum data quality requirements for data assets based on purpose of use.

Step 3

Define a data quality framework

A data quality framework will deliver the structure and key components of the data quality function within your organisation. This includes policy, standards and procedures and the data quality dimensions of relevance.

GWl has developed a foundational data quality framework (as shown below) and work with clients to tailor this to the core components of data quality relevant to the organisation's specific requirements. Additionally, we work with organisations to ensure roles and responsibilities for the data quality function are intrinsic to data governance activities.



Actions for Step 3:



Develop a **Data Quality Framework** that outlines the core components of data quality relevant to your organisational context. This includes identifying the quality dimensions of importance to your organisation and developing your data quality standard and procedures.

Step 4

Assessing the quality of your data

GWl leverages best practice data quality dimensions to assess the quality of an organisation's data. A Data Quality (DQ) Dimension is critical to describing the features of data that can be measured or assessed against defined standards in order to consistently measure quality.

Although dimensions differ between industry standards, a typical assessment includes the following dimensions as a minimum:

Completeness

What is the proportion of stored data against the potential of "100% complete"? (i.e. what level of completeness is required?)

Uniqueness

Is there a single view or master data set of the data? Or is each data element unique?

Consistency

Can we match the data across the data stores?

Validity

Does the data match our data rules?

Accuracy

To what degree does the data provide a correct description of the "real world" object or event being described?

Timeliness

To what degree does data represent reality at the required point in time?

Based on the result of the assessment, data would be assigned a rating (e.g. 1-5) to help executive stakeholders understand the quality of data being used for reporting. This leads to greater trust in decision making.



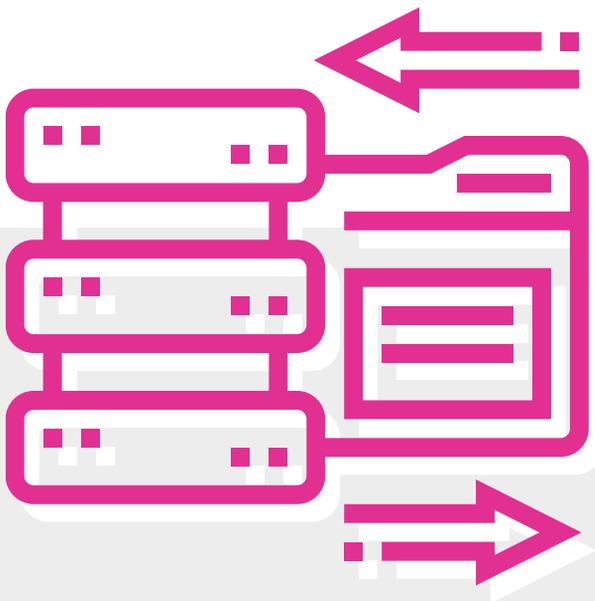
Actions for Step 4:

Complete a **Data Quality Assessment** and grading procedure against defined dimensions.

Step 5

Define the level of remediation required and develop an improvement plan

A Data Quality Improvement Plan can be used by the business and technical teams to detail the remediation required to improve the quality of the data. Remediate data at the source where possible to prevent reoccurrence of errors.



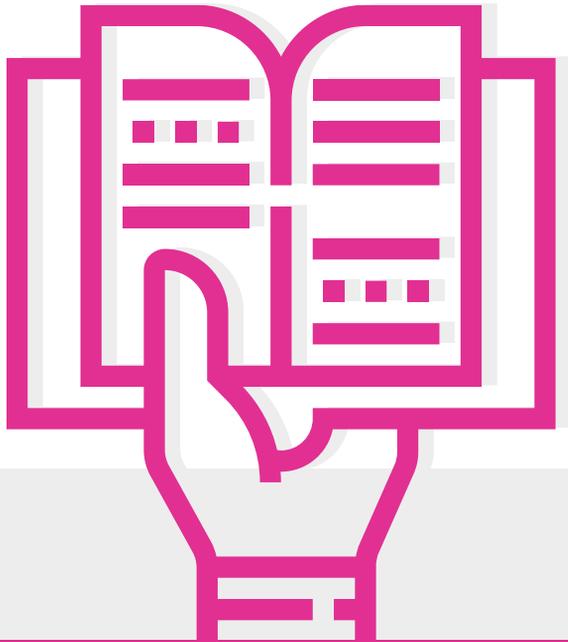
Actions for Step 5:

- Prepare a Data Quality Improvement Plan to detail the level of remediation required to improve the quality of data.
- Remediate data at the source where possible.



Step 6

Implement your data quality program to deliver results.



Start small and focus on a couple of key performance areas. Design a solution that is practical and can be scaled.

As data quality process maturity increases, the solution should scale to encompass all corporate KPIs across the organisation.

Actions for Step 6:

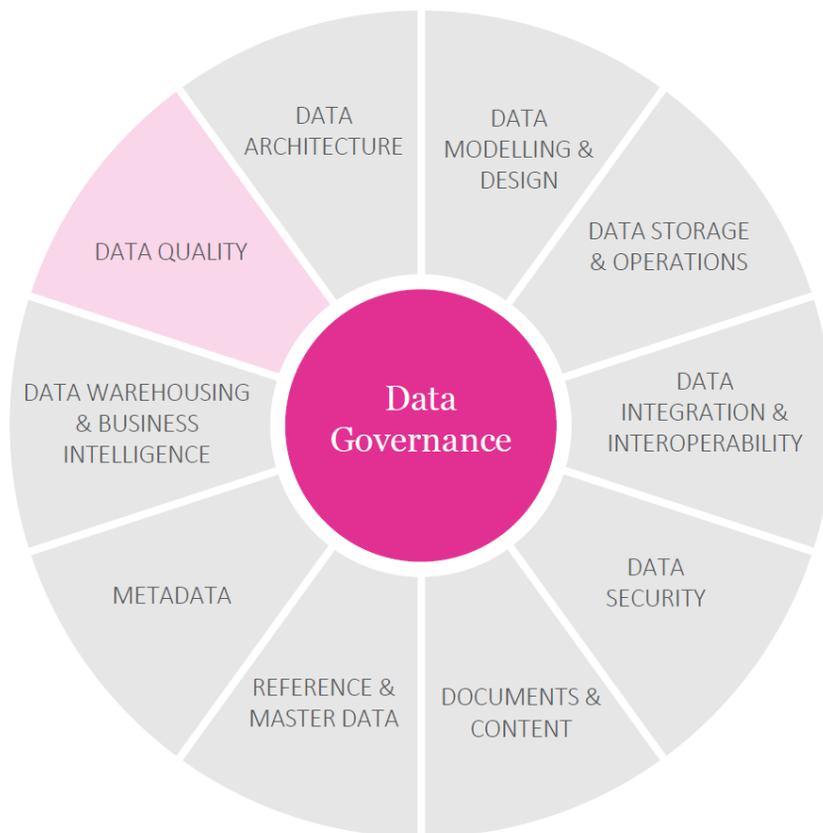


- Engage with Data Custodians and Business SMEs to test the data quality process against two example use cases.
- Complete a Data Quality Assessment and grading procedure for the two use cases to identify any modifications required prior to roll-out across the organisation.
- Scale the data quality program across the organisation and monitor improvement.

Maintain good data quality through sound governance

Good data governance sits at the core of all data management disciplines and is the critical to driving successful data quality initiatives and improvements.

Improved data quality is a measurable key result area for good governance practice.

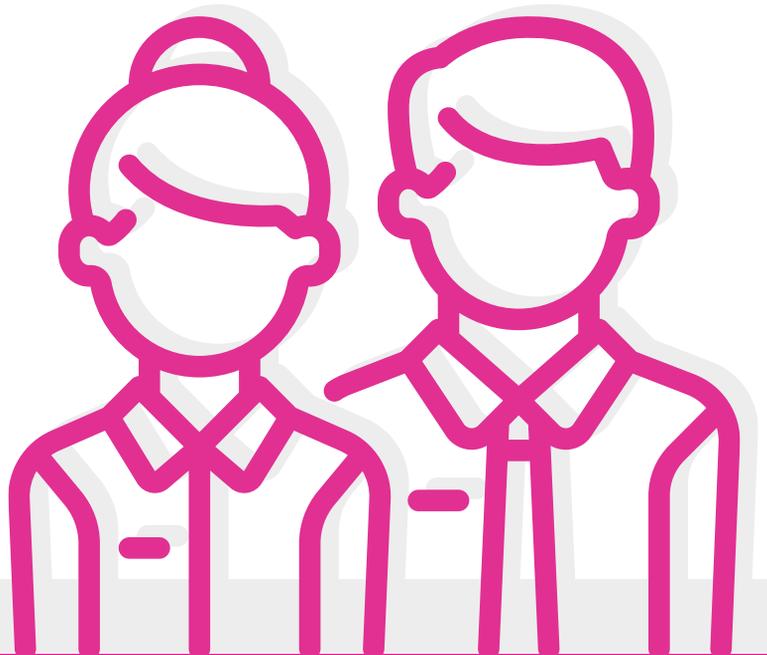


DAMA Data Management Disciplines

Our Credentials

GWIs are experts in helping organisations maximise value from their data

For more than 10 years, we have worked with clients across many different sectors - including state government, higher education, not-for-profit and commercial - to deliver data quality initiatives including the development of standards, policies, processes and frameworks.



Examples include:

- Identification and root cause analysis of data quality issues within client environments.
- Development of Data Quality Standards including data quality dimensions, assessment processes and design of step by step procedures.
- Development of enterprise-level data governance frameworks and operating models with key result areas targeted at tangible data quality improvement.
- Established quality processes for master data management.
- Delivery of induction and training for officers with a data quality role.
- Development of data quality dashboards highlighting the level of improvement achieved.



Contact us

If you need assistance to improve your data quality and data management practices, contact us:

1300 364 430 | gwi.com.au/contact