

# THE PATH TO DATA MATURITY

## BUILDING ORGANISATIONAL DATA MATURITY IN A DIGITAL ECONOMY

In today's data-driven world, organisations are increasingly recognising the importance of data as a strategic asset. A high level of organisational data maturity can enable businesses to make informed decisions, drive greater efficiencies, and provide the future platform to more effectively utilise emerging digital trends such as Artificial Intelligence. However, common challenges faced by our clients include understanding their current data maturity, defining what is required under a pragmatic end-to-end approach, and planning how to avoid common data transformation delivery challenges.

Achieving genuine enterprise wide data maturity requires a systematic approach that encompasses a holistic view of your organisation - from setting out and aligning your business, technology and data strategies, to organising your people, process, data and technology to effectively realise your objectives. This white paper outlines the benefits of establishing enterprise data management capabilities, provides a comprehensive approach for building data maturity, and summarises the common execution challenges faced along with strategies to overcome them.



## WHAT IS THE VALUE OF DATA?

It's important first to understand the potential benefits that can be realised by harnessing the value of your data. Mapping the business outcomes that data can enable, for example through value stream and capability mapping, will ensure longer term that any digital transformation proposals already translate directly to the business benefits that data can enable. By investing in your data capabilities in a pragmatic way, you can establish the foundations to enable your organisation to realise a range of business outcomes, including:

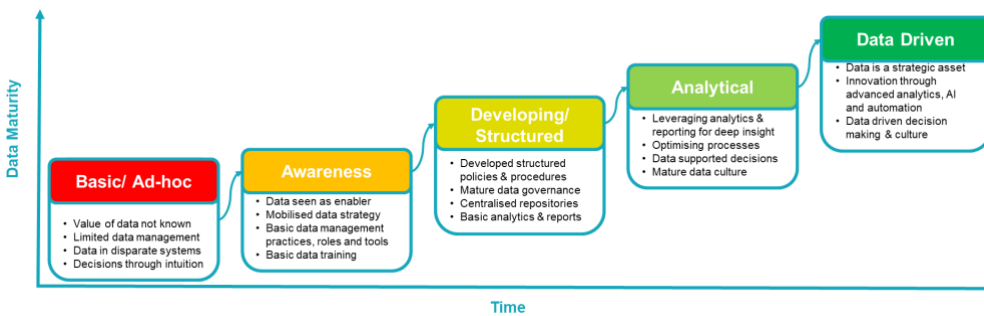


- **Decision Making** - Data empowers informed decision-making by providing insights into customer behaviour, market trends, and operational efficiency, reducing the risk of poor choices.
- **Competitive Advantage** - Leveraging data enables businesses to gain a competitive advantage by identifying opportunities, optimising processes, and develop innovative products and services.
- **Efficiency & Productivity** - Reviewing your value chain data can identify bottlenecks, optimise workflows, and eliminate redundant tasks.
- **Customer Understanding** - Through management of customer data, you can better understand your target audience, personalise products, and deliver a superior customer experience.
- **Risk Mitigation** - By analysing historical and real-time data, you can identify potential risks, such as market fluctuations, supply chain disruptions, or cybersecurity threats.
- **Resource Allocation** - Analysing data across sales, production, and customer demand, means you can allocate resources more efficiently, ensuring you invest in the right areas and avoid unnecessary costs.
- **Compliance** - Robust data management systems, policies and procedural training, means you can safeguard sensitive data, maintain data privacy, and comply with legal requirements, whilst factoring Corporate Social Responsibilities to foster trust and ethical practices.
- **New Products & Innovation** - By assessing market data and consumer trends, organisations can identify unmet needs, develop new products or services, and explore new business models.

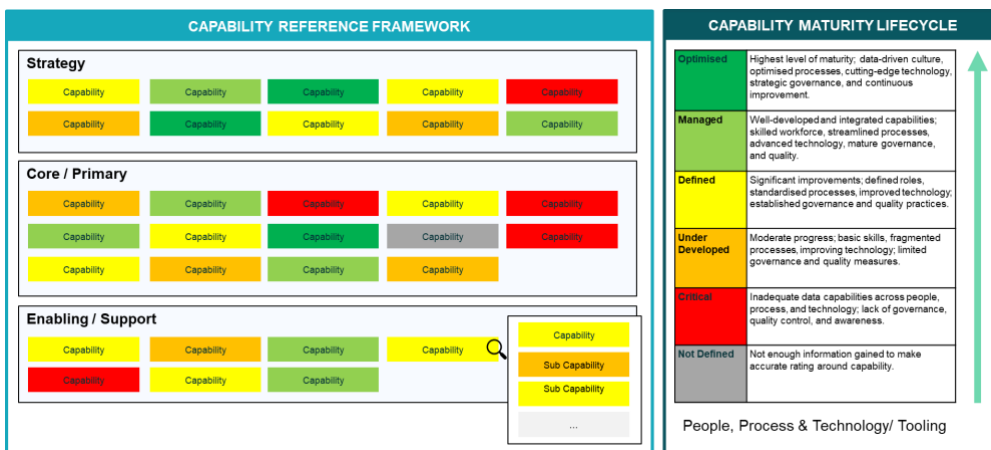
# UNDERSTANDING DATA MATURITY

To understand what you need to do to drive forward your data maturity, you'll need to appreciate where you are today, which will enable you to agree how to approach any future transformation. Here we focus on ways of assessing your organisations data maturity and then outline a pragmatic approach that can be adopted to improve data maturity.

When measuring data maturity, we can consider it both from a data lifecycle and data capability perspective. The data maturity lifecycle below refers to the macro stages an organisation goes through on its journey from basic awareness towards becoming a more strategic data-driven culture.



Data capability maturity refers to a micro level view of the development and sophistication of an organisation's data management capabilities e.g. data governance. It assesses your readiness and effectiveness in utilising data to drive business outcomes. Similar to the concept of the data maturity lifecycle, shown below, the data capability maturity framework involves a progression from lower to higher levels of data maturity while incorporating views across People, Process and Technology to provide a more holistic assessment.



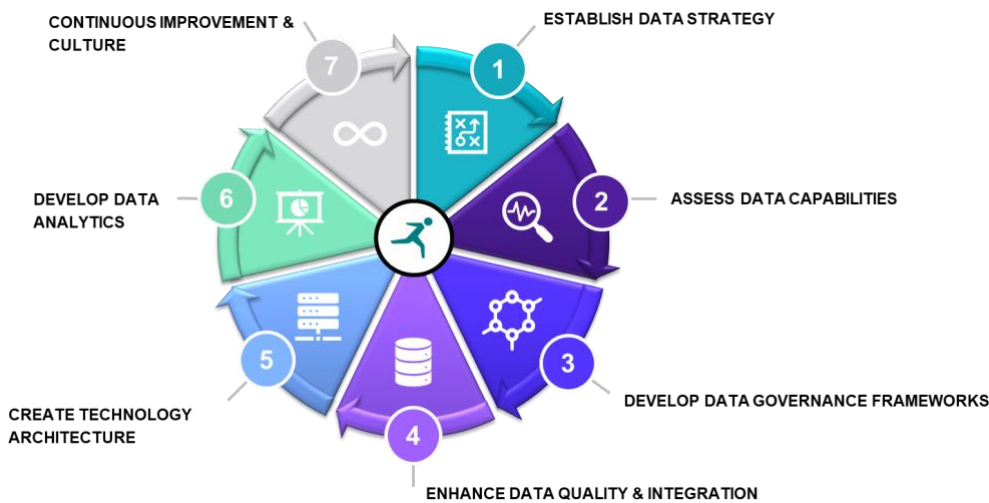
When undertaking these forms of assessment, it is also worth considering and aligning to industry best practice. DAMA (Data Management Association) and DCAM (Data Management Capability Assessment Model) are examples of frameworks that assist organisations in building data maturity. DAMA provides best practices and guidance for various aspects of data management, while DCAM offers a structured approach to assessing an organisation's data management capabilities.



# APPROACH TO DATA MATURITY

Having gained an appreciation of your organisational data maturity, we suggest starting with ensuring the business are aligned and support the development and investment in building your data capabilities. To achieve this, you'll need a clearly defined business strategy to align your data and technology strategies to. If the business strategy doesn't exist, or isn't defined, focus instead on how data transformation will help realise outcomes.

Key to any data work being successful is to engage with the business to ensure there is top-down support for your plans. Engage early and ensure sponsorship is in place to embed support at Board level, integrating proposals to the business strategy to leverage buy in. Once alignment to strategy/ outcomes is achieved, you are ready to begin the journey to improving data maturity utilising our proven approach, explained below.



## 1. Establish a Data Strategy

Building data maturity starts with developing a well-defined data strategy. As highlighted earlier, it's key here to align your data transformation with the business outcomes and to ensure there is support top-down for the work you are doing. To enable your data teams to drive towards a common 'north star' your data strategy should set out the data vision, objectives, and desired goals regarding future data usage and analytics. For example, how do current data topics such as data mesh, decentralisation, and democratisation of data factor in your planning. By analysing your as-is and defining your to-be state to address any identified gaps, and realise your vision you are able to outline the required roadmap and transformation business case.

## 2. Assess Current Data Capabilities

Before undertaking any transformational activities, it is essential to conduct a thorough maturity assessment of the organisation's current data capabilities. While DCAM provides frameworks to assess current data management capabilities objectively, it's important to undertake a holistic organisational

assessment. This should include evaluating current capabilities across Strategy, Architecture, Engineering, Governance, Analytics, and Operations. Identifying strengths and weaknesses in these areas, targeted towards realising your strategic data vision, will help determine the roadmap required to further improve data maturity or identify areas to prioritise.

### **3. Develop a Data Governance Framework**

To truly leverage the power of your data through analytics, you should focus on establishing your foundational data capabilities - starting with data governance to enable more effective use of data across the organisation. Establishing a robust data governance framework involves defining processes to manage data through principles, policies and standards, as well as outlining data ownership, roles and responsibilities. Additionally, the framework should address data access controls and security, data modelling, and data lifecycle management. Clear governance guidelines will foster a culture of data accountability and enable effective decision-making.

### **4. Enhance Data Quality and Integration**

Data quality is also paramount for building trust, delivering reliable analytics and achieving meaningful insights. Don't forget to invest in your data architecture across data sourcing, data rectification and data integration processes. This involves implementing data profiling techniques, introducing data standards, and rectifying data inconsistencies. Through increased quality and standards for data, you will improve your ability to integrate data from different systems and sources, which is crucial in creating a unified view of data, enabling more accurate reporting and analytics.

### **5. Create Technology Architecture**

Creating a technology architecture is instrumental in enabling the realisation of your target data management capabilities. A well-designed technology architecture provides the necessary infrastructure, systems, and tools to support data management, integration, analysis, and visualisation. By aligning the technology architecture with your data strategy, organisations can effectively implement data management solutions, leverage advanced analytics and AI technologies, and ensure the availability, security, and scalability of their data infrastructure.

### **6. Develop Data Analytics Capabilities**

Establishing a robust data analytics capability involves progressing through three stages from descriptive analytics to predictive analytics and ultimately reaching prescriptive analytics. Starting with descriptive analytics, this focuses on examining historical data to gain insights into past performance. Organisations need to invest in data collection and storage systems, as well as basic data visualisation tools to effectively analyse and present information. Moving to predictive analytics, this involves utilising statistical models and algorithms to forecast future outcomes based on historical data



patterns. This requires advanced analytics tools, data mining techniques, and a strong foundation of data quality and data governance.

Finally, the highest level of maturity- prescriptive analytics, involves leveraging machine learning algorithms and optimisation techniques to generate actionable recommendations and make data-driven decisions. Achieving prescriptive analytics capability demands advanced analytics platforms, a continuous flow of high-quality data input, and expert data scientists.

## 7. Continuous Improvement & Culture

Building data maturity is a collaborative effort that involves multiple stakeholders across the organisation, from Board level buy-in to daily end users. It is crucial to foster cross-functional collaboration and effective communication channels. By creating Centre's of Excellence (CoEs) it's possible to drive out standards and patterns as controls, whilst providing user enablement through training, code snippets and blueprints. Encouraging data sharing, knowledge exchange, and interdisciplinary teamwork will help leverage diverse perspectives and generate innovative ideas. Regular communication about data changes, progress, and outcomes will build trust and engagement among employees.

Finally, data maturity is not a one-time achievement, but an ongoing process. You will also need to establish Key Performance Indicators (KPIs) to measure the effectiveness of your data transformation and support realisation of the benefits defined. Regular monitoring, evaluation and reporting will help to continuously identify areas of improvement and address emerging challenges, whilst tracking realisation of benefits. You will also need to ensure you stay abreast of technological advancements and industry trends to progressively adapt your data strategies accordingly.

## COMMON EXECUTION CHALLENGES

Improving an organisation's data maturity can be a complex endeavour, and several challenges will likely arise during the process. Here are five common challenges companies face when striving to enhance their data maturity.



**Change Management and Stakeholder Alignment:** Driving organisational change and obtaining buy-in from stakeholders can be a significant hurdle. Resistance to change, lack of awareness, or insufficient executive support can impede progress. Ensure you develop a comprehensive change management plan, communicate the benefits of data maturity, involve stakeholders at all levels, and demonstrate the value of data-driven decision-

making by delivering business outcomes.

**Data Privacy and Security:** Protecting sensitive data and ensuring privacy compliance is an ongoing challenge. To counter this risk, you must establish robust data security measures, implement access controls, conduct regular security audits, and stay updated with relevant CSR, data protection and future potential compliance changes e.g. GDPR and AI ethics.

**Data Integration and Management:** Many organisations struggle with integrating data from various sources and systems. Siloed data can hinder the ability to obtain a comprehensive view of the organisation. You will need to develop robust data integration strategies, implement effective data management systems, and create an approach to data centralisation to consolidate and harmonise data.

**Data Culture and Skills Gap:** Building a data-driven culture and developing the necessary skills across your organisation can be challenging. Data literacy is crucial for employees to understand and interpret data effectively. You will need to provide training and education programmes, foster a data-driven mindset, and promote collaboration between business, technology and data functions.

**Data Quality and Integrity:** Ensuring the accuracy, lineage, completeness, and reliability of data is a significant challenge. Poor data quality can lead to incorrect insights and decisions, which ultimately erodes trust. To be successful you must establish data quality standards, implement data governance practices, and invest in data cleansing and rectification processes.





## **GLUE REPLY**

Glue Reply is the Reply Group Company specialising in IT architecture, integration and data solutions that drive business value. Pragmatic in its approach, Glue Reply provides independent advice on the technology solutions that achieve clients' business objectives. Glue Reply's core proposition is to help organisations maximise the value from their business change and technology investments by helping them define, design, implement and resource best practice. Glue Reply works with many companies as a trusted advisor as well as being known for getting stuck into the nuts and bolts of any technical challenge to ensure the desired outcome. Glue Reply's solutions drive operational excellence whilst preparing clients for digital transformation, cost reduction and data exploitation.

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