



Improving Data Health to Optimise Business Value Today and in the Future

Introduction

It is nearly twenty years since data was heralded as ‘the new oil’¹. Like oil, data needs to be collected and processed before it releases its value. Yet, unlike oil, there is precious sign of it running out. Quite the opposite in fact. By 2025, global data creation is projected to exceed 180 Zettabytes.² For context, one Zettabyte is around a billion Terabytes or a trillion Gigabytes, and the 180 figure is just for newly created data. One thing is certain, this valuable business resource is growing exponentially. Handling available data effectively is already a challenge and is only going to become bigger as volumes increase exponentially.

Turning data into insights for intelligent decision-making is the key to business growth. When organisations base decisions on data, they can take bold steps that propel them ahead of their competition. While many businesses see data as the foundation of their decisions, only 30% have developed a well-articulated data strategy for their company.³

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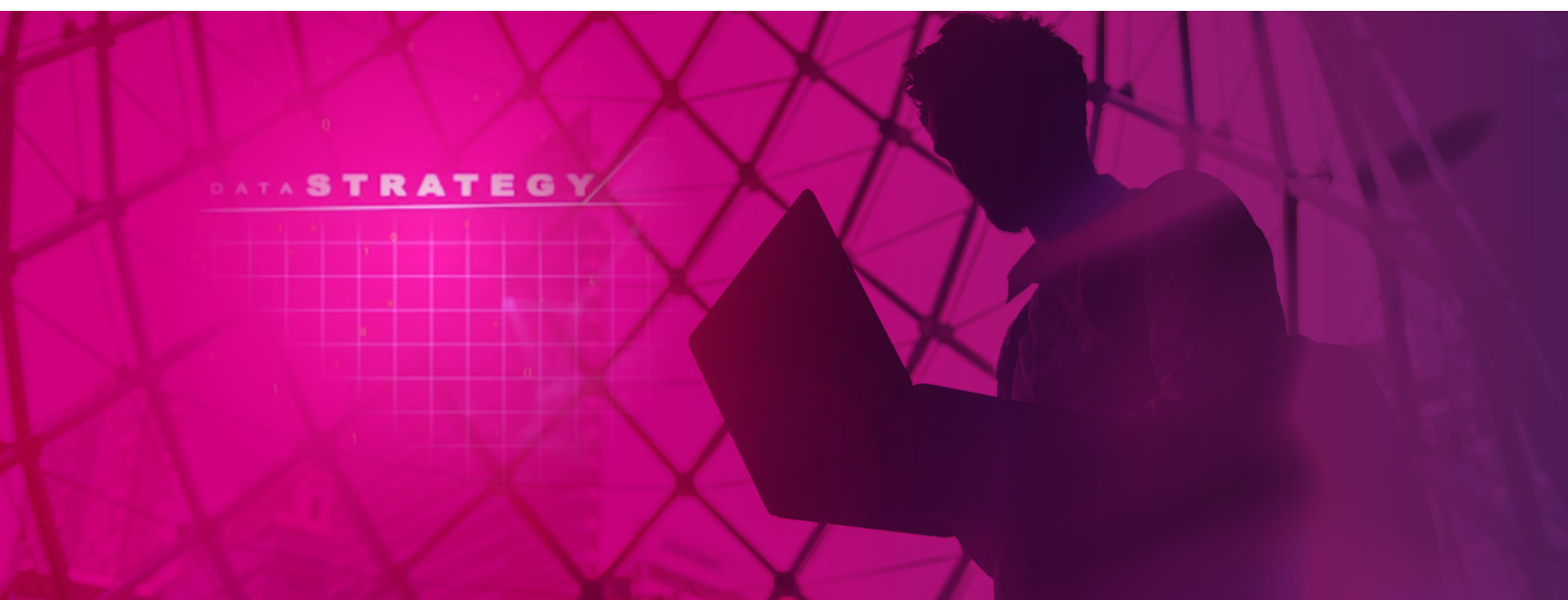
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Data is a precious thing and will last longer than the systems themselves.

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Tim Berners-Lee

¹ Clive Humby, data science entrepreneur and architect of the Tesco Clubcard coined the phrase in 2006

² Statista.com. Volume of data created, captured, copied and consumed worldwide from 2010 to 2025

³ New Vantage Partners Big Data and AI Executive Survey

Businesses need healthy data. Healthy data needs a data strategy.

Without healthy data every decision and potentially every business is at risk. Keeping data in good condition means maintaining a balance between availability, usability, integrity, and security.

Data Health Risks

Data in Silos

Across the organisation, different departments will have their own sources of data and hold it on systems and in formats that meet their operational needs. Much of the data resides in siloes that are out of reach to everyone but that department. Even if it is accessible, the data may be incompatible with other data sources. This can lead to storage and processes being duplicated, and risks inconsistencies.

Repetitive Manual Processes

Combining data from a range of different places into a single, accessible data set can affect data health, especially when this involves manual and repetitive tasks. This introduces risks from human error, mis-keying data for example, or incompatible date formats. Apparently minor errors often mean that the full value is not extracted, or, worse, decisions are based on inaccurate data.

Lack of Governance

There is a significant risk of losing control over data and how it is used if there is limited visibility of where the data came from, who owns it, its processes and outcomes. This can result in data not being fully trusted, open to misuse, leading to potential breaches of privacy and data loss. Risks range from a poor basis for decision-making, to allowing malicious access to data.

The Power of a Data Strategy

Although it might be tempting to think that a data storage system plus a data management process equals a data strategy, this is a common misconception. Data strategy is much more than the technology or the IT infrastructure that has been built around data. A data strategy reaches into the culture of a business. For an organisation to thrive, its people need to have trust in the data to support and drive effective decision-making.

Building a data-driven culture across an organisation is possibly the hardest element of implementing a data strategy, but one of the most vital to embed data in business decision making processes.



What benefits can an organisation expect from implementing a data strategy?



Unlocking Power

There is no limit to data or data sources. Every interaction creates data. The starting point to unlocking the power of data is understanding how to capture it, store it, convert it into useful information and share it across the organisation.

This understanding is the first step on the path to deriving insights and value from the data. It provides the foundation for innovative technologies like AI, advanced analytics and predictive analytics that inform decisions around customer buying trends, and even issue warnings about risk, fraud or performance issues.



Managing Volume

The sheer volume of data can be overwhelming without a strategy. Taking an unstructured approach runs the risk that data will not be used efficiently, it could provide a shaky foundation for decision-making, or key data could be lost.

The adoption of AI and Machine Learning gives more people access to toolsets to help them manage large volumes of data more effectively. Using neural networks allows large volumes of data to be classified and clustered extremely quickly.

A clear, coherent data strategy puts the right processes in place to manage volumes of data and provide access at the speed required to use it.



Improved Quality

The quality of decisions depends on the quality of the data they are based on. Inconsistencies caused by duplication and overlaps in processing greatly impact efficiency and reduce faith in the output. Data cleansing is key to providing accurate, reliable and consistent information for robust decision-making.

Implementing a data strategy that improves data management across the whole organisation will align different departments and their data, ensuring they work with, rather than against, each other.



Efficiency Gains

Different departments and individuals have tended to solve data issues on their own. This has often led to duplicated efforts and inefficient use of resources.

Creating a consistent set of processes around collecting, storing and managing data ensures resources are used efficiently and equitably across the organisation.



Security and Compliance

Some of the data health risks already mentioned – data silos, people using data from different sources – can expose an organisation to the possibility of data breaches, insider threat and cyber-attack.

An organisation-wide data strategy that encompasses security and governance processes to control data access and use increases assurance and protects data.

The Human Element



An organisation's data strategy will have a profound impact on people; employees, customers and partners alike. Strategies tend to be all-encompassing and inclusive. While it is important, naturally, to consider the processes and technology that help deliver the data strategy, it is vital not to lose sight of the 'people' side of the triangle.

Data strategies – like adopting AI – can release people from repetitive manual processes to focus on more rewarding, value-adding activities. It can help people make meaningful adjustments to how they interact with customers, for example. It can help ensure that people can, and do, meet their personal goals and objectives.

Creating a data-driven organisation means forging a data-driven culture. Not an easy task, but possible with the right adoption and change management approach to manage the elements of the technology and process changes that require people to do something differently. Embedding these changes is key to creating a culture that enables the desired outcomes and return on investment in your data strategy.

Communicating the business and cultural changes should be part of the data strategy and delivered as part of a structured adoption and change management methodology.

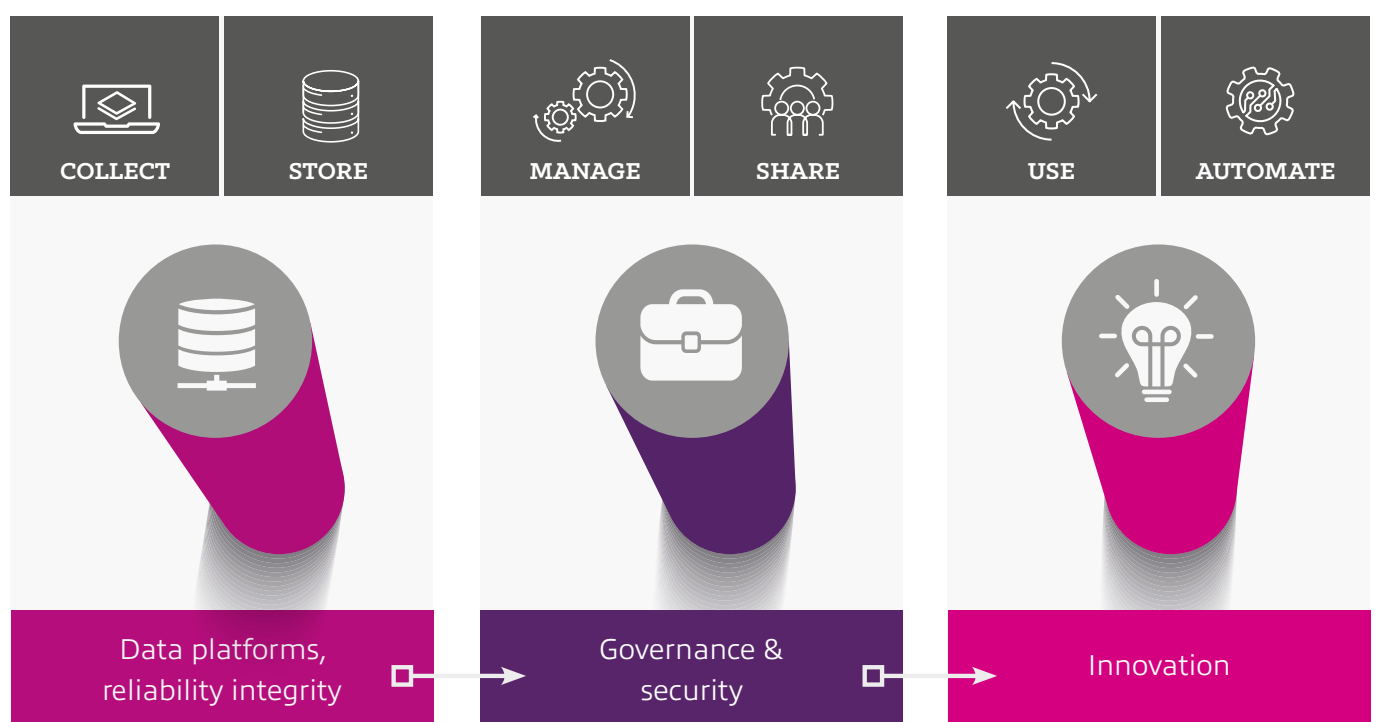
The Data Lifecycle and Data Strategy Pillars



Data is far from static. It progresses through various stages within an organisation. At any given moment there will be some amount of data moving from one stage to the next as part of a natural data lifecycle.

First data needs to be collected and stored, it needs to be managed so it can be shared and used, and finally it automatically contributes to AI or Machine Learning decision making. Understanding how the organisation approaches each stage is step one in building a data strategy.

3 Pillars



Client Success



PILLAR 1

Data Integrity and Reliability

Data Integrity and Reliability is the foundation for good business decisions. The way data is collected and stored affects how complete and accurate data is. Reliable data is essential for building trust both across an organisation and with customers.

Client Success

Insight helped a global engineering business address the data integrity and reliability challenges it faced when storing and managing data in various locations around the world.

As well as building a data warehouse environment hosted in the engineering firm's Azure cloud environment, Insight provided guidance on how to move data into the new environment and trained staff in generating accurate reports from reliable data. The project was delivered within one month of the start date.



The ability to consolidate disparate sources of data into a single view of the truth.



Significant time savings as staff are no longer required to spend time compiling data.



Renewed trust in the client's enterprise resource planning system as all parties agree on one set of data.



The foundations for future digital transformation including predictive analytics and IoT.



PILLAR 2

Governance and Security

Governance and Security protect a business from non-compliance and cyber threat. A data strategy that governs how data is managed and access granted to people who need to use it reduces the risk to the organisation and the people it holds data on.

Client Success

A global telemetry specialist, Technolog, looks after a network of over 300,000 monitoring devices for companies across the world. Each client has its own secure AWS account that needs to be set up quickly without exposure to potential security or compliance risks that a manual process could introduce. The company's priority is its own product innovation rather than AWS best practice and so looked to Insight to deliver consulting capabilities.



Technolog can now create new AWS accounts in less than 30 minutes - a much more efficient process.



AWS SSO implementation facilitates Technolog to centrally manage multiple AWS accounts, making it more productive.



Cisco Duo Security integration enables Technolog to use its preferred security partner alongside AWS seamlessly.



Technolog can be confident its accounts are set-up using the most up to date market knowledge, around AWS security and compliance best practice.



PILLAR 3

Innovation

Innovation is where the magic happens. Innovation paves the way for growth. Data innovation can mean reinventing or fundamentally transforming a business process with new types of data analysis or new sources of data.

Client Success

The largest integrated gas and electricity company in Spain wanted a centralised platform to enable staff to access more than 1.5 million documents located across its plants. The platform needed an advanced document search functionality and to be accessible from any device to any employee, at any location.

Insight's Digital Innovation expertise developed a solution based on Microsoft technology using AI to automatically index and assign metadata for cloud storage.



Insight developed all of the infrastructure, flows and algorithms, collaborating side by side in the debugging of these in a totally transparent process for Naturgy.



Now any employee can not only consult, but provide documentation from any device, which is classified in real time to optimise future searches.



The solution uses AI technologies that will facilitate its operation in other departments.

Next Steps



There is no quick-fix 'one size fits all' way to create a data strategy, but there are lots of less than perfect ways to go about it. These can be costly in many ways: financially, reputationally and in terms of missed opportunities. The right data strategy will be unique to your organisation, its specific needs, risks, objectives and people.

That is why it is so important to gain a ground-level understanding of the current situation and gain buy in to the end-goal. Building a data strategy involves understanding where you are now, where you want to be and how to get there.

Five key steps to building a data strategy

1

Understand and evaluate your current data architecture

- Is it fit for purpose?
- Is it scalable?
- Is it futureproof?

2

Define the processes for the teams that work with data

- Standardise data sets as much as possible
- Ensure teams have easy access to data relevant to their needs

3

Assign ownership

- Different teams may have ownership at different stages of the data pipeline

4

Establish data governance

- Set and communicate standards and processes
- Understand how to get your teams to adopt these standards and processes (cultural)
- Define the processes you can automate that do not require human intervention (technological)

5

Review and assess your data strategy regularly, every 6 to 12 months

- Keep your data strategy in sync with organisational strategy to maintain momentum and confidence.

A well-structured and articulated data strategy provides a strong framework for future development. It enables a business to make continuous progress through innovative decisions based on healthy, accurate, trusted data.

Summary



Data is a valuable business asset. A data strategy improves the health of that data and reduces unnecessary risks to the business. Trusted data is the essential foundation for making the decisions that propel an organisation forward.

Three pillars of data strategy support the data lifecycle:

- **Integrity and Reliability** are essential elements for collecting and storing data that is healthy and trusted
- **Governance and Security** controls the management and sharing of data in a safe and compliant way
- **Innovation** is both key to, and benefits from, effective data use and automation

A data strategy is continually evolving, as is Insight's expertise and knowledge. We have helped many organisations meet their data objectives, learning lessons that apply to every kind of business, at every stage of the data lifecycle, to transform data into trusted information.

For more information on how to implement a data strategy in your organisation, visit <https://uk.insight.com/data-strategy>

Meaningful solutions driving business outcomes

We help our clients modernise and secure critical platforms to transform IT. We believe data is a key driver, hybrid models are accelerators, and secure networks are well integrated. Our end-to-end services empower companies to effectively leverage technology solutions to overcome challenges, support growth and innovation, reduce risk and transform the business.



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