

Whitepaper.

The 5 pillars of data transformation.

**An accessible route to
data-driven maturity**



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Building data maturity.

The quest to become data-driven.

Robert S. McNamara is credited with having coined the phrase, “If you can’t count it, it doesn’t count.” Variations of that nugget of wisdom persist today, wherever leaders strive for fact-based decision-making over gut instinct. Today, we have more data than ever before with the world’s store of bits and bytes doubling every two years. Every smart organisation needs to participate in the information economy, corraling knowledge from every internal and external source to win an early-mover edge over peers. It can be sales trends, geolocation variance, the weather, emerging social media memes or even a computer’s machine data that was once treated as digital trash, but if it can be captured, digitised and mined, ideally in real time, it’s an amazing advantage. If you’re reading this, you’re probably on a quest to become data-driven and data-centric, making fast, auditable decisions based on hard facts, anticipating trends, capitalising on opportunities and warding off threats at the pass. Agreed? OK, but where do you start?

While lots of people talk a good game, becoming an organisation that treats data as an asset isn’t easy for operational, human, and myriad other reasons. In this paper, we provide jargon-free, practical ideas to get on with the job based on proven success with customers.

Establishing a starting point.

Becoming data-driven isn’t just about technology: it should involve a combination of technologists, leaders, and people with line-of-business specialist knowledge. The principle of GIGO – garbage in, garbage out – applies here. Obviously, you’ll need to ask the right questions to get to the right answers, so create a steering committee that is best capable of describing overall business goals that affect data and current frustrations, as well as people who understand data architectures, data science and data platforms. Be open: if you don’t trust your data or feel that you have the budget or people to do better, be honest. You’re embarking on a major change programme that will impact the very heart of your organisation going forward.

Organisations that are on this journey want to drive value from their data, but what they are attempting isn’t really about data first and foremost – it’s accelerating the maturity and growth of their business with data as a north star.



The journey to data maturity.

An organisation described as 'mature' has typically embedded data-driven processes and analytical modelling into their decision-making, as opposed to 'immature' organisations who are at early development or still in planning phases. Most organisations¹ typically find themselves in the 'Developing' stage, with a roadmap for data and much of their journey still to undertake.

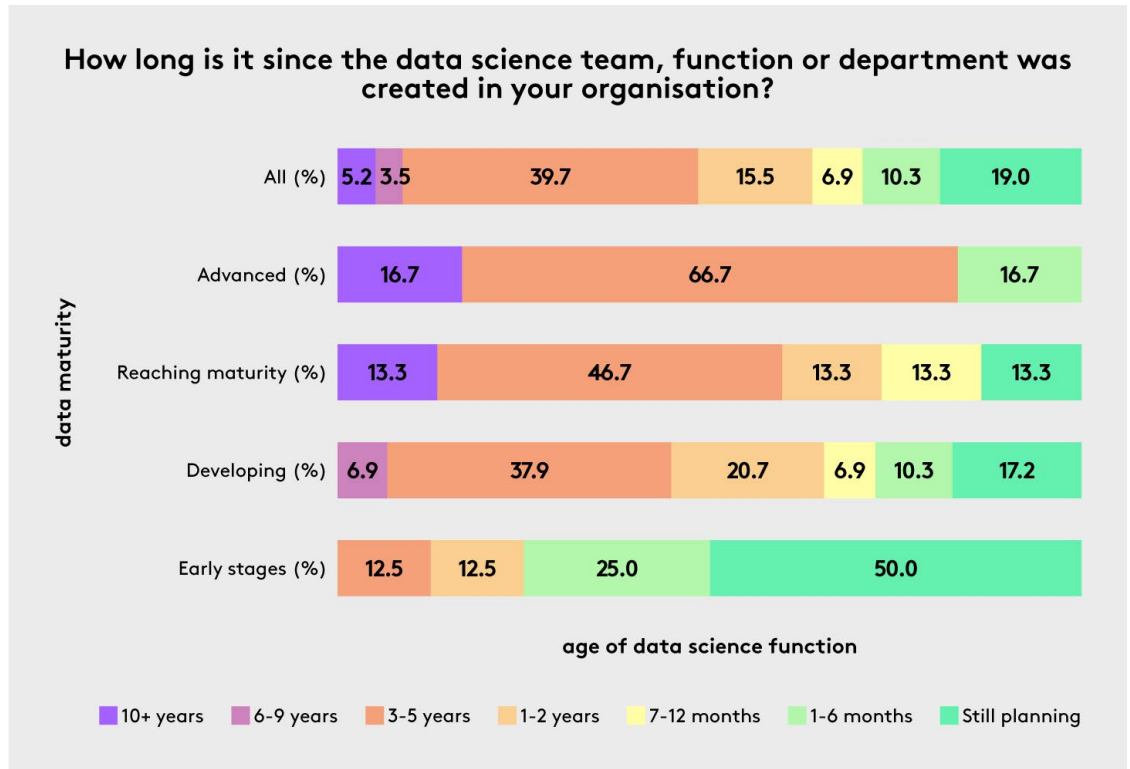
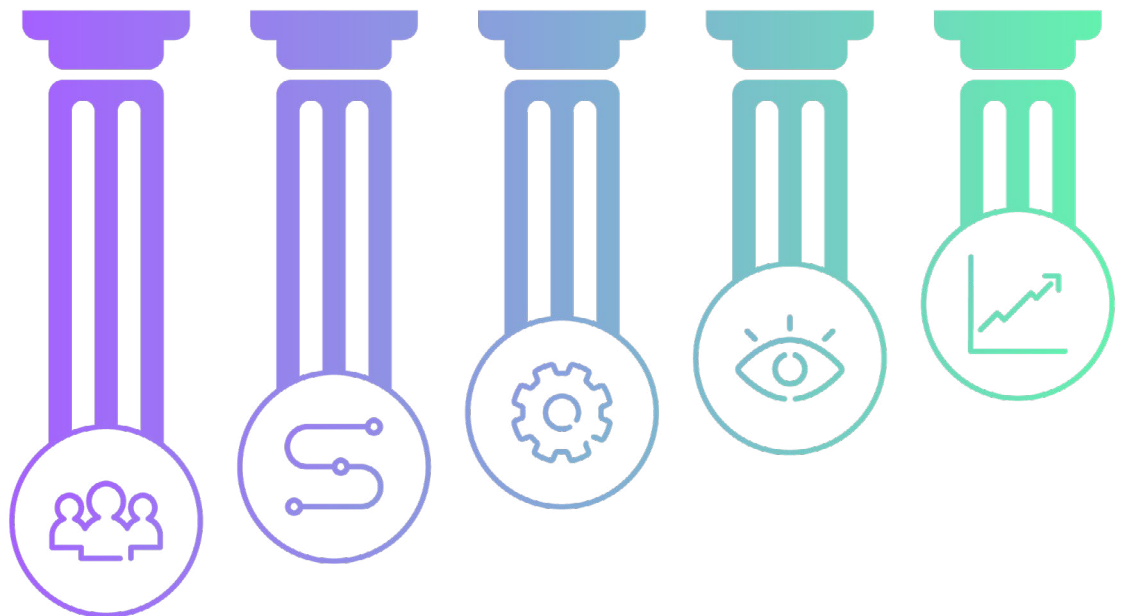


Figure 1.0 / ref

Consider how data and technology support or enable the delivery of your business objectives today. You will need to evaluate the quality of the data you hold, whether that data is accessible to people who need it, and if data sets can easily be collated and merged to create new insight. Then visualise where you'd like to be in 6, 12 or 18 months - and what success looks like in your mind's eye - only then can the job of bridging the gap begin.



Shaping your data transformation: the 5 pillars.



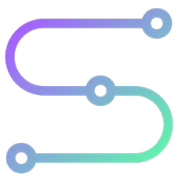
ONE: People & Culture.

The Human Factor.

You might think about getting the most out of data as an 'IT thing', but if you can't manage the people and culture aspect, then all the data in the world won't help you. Much of the job here lies in communication. Engage with as broad a population as feasible, from junior staff to the CEO – help them understand why change is required, the likely impact, how long this will all take and what it will mean for everybody. Be descriptive and offer reference points that your teams can connect with, like Amazon's notorious recommendation engine or Google's monetisation of search. Some employees may be concerned that they will be automated out of a job, some may fear a focus on data naturally creates a Big Brother culture, but others simply struggle with change and find it difficult to disconnect with established ways of working. Fundamentally, you're battling fear and uncertainty: the change you are proposing is based on a topic that many people know very little about (data & analytics) so empathy is essential to bring your teams on the journey with you.



You need to think about how you communicate: regular email broadcasts are useful, but many will appreciate face-to-face discussions, brown-bag lunches or one-to-one chats. Tell people why data is important and why weaving data thinking into every discussion is valuable. Ask them how they can help: equipping them with essential data literacy skills will not only be a huge step forward for your organisation, but a great development path that furthers the individual's career prospects. Tools like Microsoft Teams and Slack are useful for showing progress and encouraging participation and brainstorming. A combination of all the above will probably be best: you're making a strategic philosophical and structural change, and that deserves everyone's attention.



TWO: Programme & Change.

Tackling change.

Everyone knows that managing change is one of the hardest things for an organisation to do. It's disruptive, it stretches people and takes them out of their comfort zones, and it can create tensions as roles and responsibilities change. It's therefore critical to create a formal programme for change that is documented and shared as widely as possible.

Your aim should be to create a sense of energy, dynamism and excitement. Generating and maintaining buzz is key: show people quick wins and evidence that changing is the right thing to do. Brilliant communications tools include ROI tracking (quantitative and qualitative) and a clear timeline with key milestones. You should also consider the best structure for your change programme, with particular emphasis on who should be involved and who should lead (hint: not always the most technically capable if there are people better equipped to win hearts and minds). Success will need to be measured in a consistent way so that employees at all levels can see the data driven programme at work, rather than isolated instances of innovation. Seek out any impediments such as sensitive data that can't be shared or critical business processes that will be hard to re-engineer and plot a strategy with workarounds.

These milestones are essential for moving away from a series of data science projects to being a truly data-driven company.



THREE: Technology.

The technical challenge.

Clearly, any data-driven transformation requires a strong technology platform. CIOs will naturally be deeply involved but they also need to be educators, explaining why key decisions are being made and likely impacts to the way people work and core processes. Many organisations are beginning appointing Chief Data Officers, but data and IT teams will also need to work closely together to ensure integration and alignment.

Technology is a vital underpinning for both data **defence** and data **offence** strategies. On the **defence** side, data quality, management, governance, integration, and standardisation will all be tough challenges, especially for organisations that have accumulated layers of applications, platforms and databases over the years. Working through these challenges will require patience, funding and strong leadership.



On the **offence** side, using a solid platform to deploy and scale your models is the only way to derive significant value from your data. A dashboard or predictive model on a data scientist's laptop might be interesting, but more often than not the insights gained from them fail the "so what?" test. It's only when you productionise these models, gaining live insights from new data as it comes in across the organisation at scale, that the huge potential for value is unlocked.



FOUR: Management & Governance.

Governed analytics.

Rules on data protection and privacy such as the EU's GDPR will need to be recognised and respected, so data governance and responsible, ethical use of data must be widely understood and addressed. Your people need to have a clear view of your data owners and stewards, the policies and procedures they need to follow, where they can go with concerns or questions, who can access data and what controls are in place to protect it. This will require formal training but also constant monitoring and updating and skills refreshing.

Gartner suggests establishing a trust-based governance model that:

- supports a distributed ecosystem of data and analytics assets,
- acknowledges the different lineage and curation of these assets, and
- assists business leaders in making contextually relevant decisions with greater confidence.

This approach needs to be supported with clear and well-defined roles around data governance.



FIVE: Data & Analytics Capability.

Adopting data science tactics.

Making optimal use of data is a critical differentiator in the digital economy. Often, data and analytic talent is spread across departments, and as part of a data maturity journey, business leaders need to bring this community together to ensure consistency and accelerate outcomes. These individuals will have different skills and characteristics, from data cleansing to building pipelines, dashboards, visualisations and advanced analytic models: mining and probing by asking 'what if?' questions and identifying trends as well as separating signal from line noise. But they must also be capable of explaining their findings in business language that non-specialists understand. Look for 'E-shaped' people: those that have expertise but also experience, a willingness to explore and the capacity to execute on tasks. This is not an insignificant investment and it is also challenging because budget requests will be made with a lot of the return on investment coming years down the line.

With data skills scarce and in demand, many organisations will need to bring in partners to help match their use case with the expertise they need. Take the time to really understand the range and depth of skills you need to avoid unnecessary overhead and downtime in expensive resources that aren't a perfect fit for your projects.



Conclusion.

The chance to create a very different organisation.

Successfully transforming to become more data-driven will yield many benefits that allow organisations to see upstream opportunities, tweak strategies, identify new markets and address weaknesses and risks. These organisations will be resilient, forward-thinking and able to ride out shocks such as economic downturns or disruptions from competitors. Their decisions will be clear-eyed rather than based on emotion or gut feel.

But organisations should be continuously on the lookout for opportunities to refine processes and make iterative changes as they go along, to democratise data to more decision-makers and to gain direct and indirect value from their work. Transformation is not a project but an ongoing (and never-ending) journey... and one that everyone should be taking.

We'll leave you with 3 recommended steps to think about when formulating your data-driven strategy - but if along the journey you need any support, we're always on hand to help: contact our team on letstalk@ascent.io.

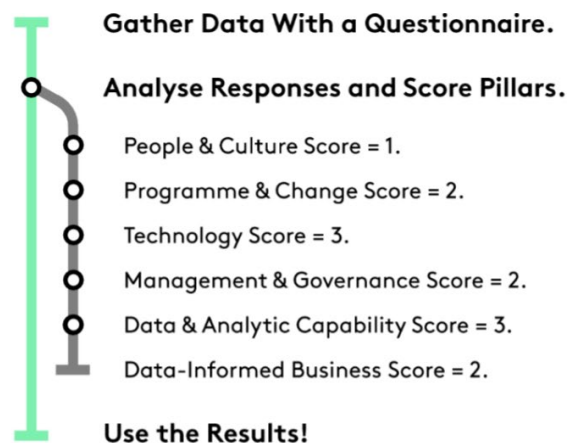
Building (and measuring) data maturity.

1. Quantify your current state.

We first gather data on current maturity in each of the pillars using a structured questionnaire.

We then analyse the responses and calculate a maturity score (1-5) for each of the pillars.

Finally, we use the results to **inform the next stage of the digital transformation journey**. For example, we might use them as the starting point in a Data Strategy roadmap.





2. Define your target state.

Digital transformation is not just about technology.

If data is to help an organisation deliver on its business ambitions, they need to build capability in several other areas too.

We call these **data maturity pillars**.

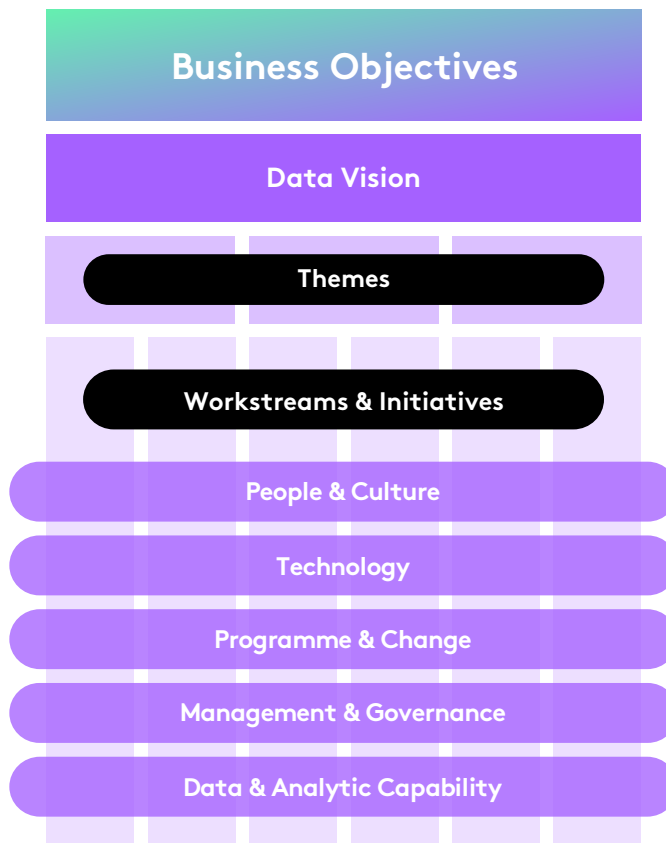
Strategic digital transformation involves building maturity in a **balanced** way (from score 1 to 5) across these pillars.

Where Are We Now?

People & Culture.	1	4
Programme & Change.	2	4
Technology.	3	4
Management & Governance.	2	4
Data & Analytic Capability.	3	4
Data-Informed Business.	2	4

Where Do We Want To Get To?

3. Link your data vision to your established business objectives.



Hypothesis linking business objectives to the application of data.

Set of or “themes” for value creation.

Set of initiatives that deliver incremental business value, structured in workstreams.

Foundations against core transformation pillars to enable lasting change.



With data at the heart of digital success, we help customers to understand, prioritise and accelerate initiatives that evolve data maturity and embed lasting business value. We aim to optimise the relationship between data and a business's vision and purpose, delivering strategic and tactical support along the way.

Data Strategy:

We help you create a clear narrative around your data journey, articulating how data could (and should) be leveraged in your organisation to overcome existing challenges and deliver on business ambitions.

Data Science:

Our award-winning data science teams help establish predictive capabilities in your business that empower you to answer critical strategic and tactical questions with confidence. This includes the development and deployment of advanced analytic models to optimise decision-making that allow you to accelerate growth and transform performance.

Business Intelligence:

By turning raw data into actionable insight, we help you understand your business better by increasing the overall quality and 'trustability' of your data and surfacing it in an intuitive, usable way.

Data Engineering:

Our data engineering services are designed specifically to prepare your data to deliver intelligence and insight, helping you answer critical business questions and make better decisions.

