



## How to become a more data-driven organisation

According to [Gartner](#), "transforming into a (truly) digital business is the number one priority of most organisations. However, a digital business cannot exist without data and analytics. If an organisation struggles with digital transformation, perhaps they haven't given enough thought to data and the potential for valuable insights."

As well as valuable insights, there is also huge potential to enrich your digital products using intelligence that is already available in your data without you realising it.

Aggregating, analysing and surfacing the data, making it available to your digital end-products, presents endless opportunities for innovation and to drive measurable results from your digital platform.

Gartner goes on to say that "*Many enterprises face a major shift when considering their data-driven ambitions. This shift does not simply change the allocation of work; it changes the nature of their business and the nature of work related to data and analytics. Data and analytics must be woven into everything. This shift doesn't occur without an executive who is focused on making it happen.*"

### Five Steps to a Data-Driven Culture

To become a data-driven organisation, 101 Ways believes you need to focus on the following five steps:

1. **Outcomes:** Defining goals and metrics to ensure clear and measurable outcomes
2. **Analytics:** Implementing and sharing the analytics to improve data-driven decision making
3. **Innovation:** Testing assumptions through hypothesis testing and learning
4. **Data Platform:** Gaining new insights and enabling more intelligent features through improved data integration
5. **Culture, Skills and Capabilities:** People who believe in and understand the new ways of working are as important as the technology

### Where to start?

Too many times, data warehousing, business intelligence, and big data initiatives start with the idea that "if we could only gather all our data in one place, imagine the possibilities!". This way of thinking leads to a very costly mistake.

With this belief in mind, many companies have gone on to build a data platform that attempts to aggregate all their data sources in one place, with the vision that if they create such a fantastic asset, it will lead to tremendous possibilities.

It usually results in building something that takes so long and is too unwieldy. You often end up with a solution looking for a problem or a costly solution that no-one uses which is often the case with technology-led initiatives that are not driven by real business issues or are not in themselves data-driven.

The real goal must be to become a data-driven organisation that:

- Uses relevant and necessary data to make critical decisions or enrich their digital products
- Prioritises outcomes over outputs
- Understands that facts matter more than opinions
- And believes testing is more important than guessing

It means that the data initiative itself must be data-driven. Starting with a clear view of the desired outcomes, the analytics in place to measure the current position, experiments to enable testing which ideas and innovations are most impactful, and building data into the platform only as is necessary to measure and drive those outcomes.

Effectively, it means you should start at the end and work backwards.

## Outcomes: Start at the end

What we mean by "starting at the end" is first to understand what you want to achieve and how it will be measured - which is not as easy as it sounds.

There are often so many perspectives on what you want to achieve that reducing it down a clear set of focused objectives isn't always easy.

### Alignment is key

Getting everyone aligned on those objectives is imperative and isn't always easy either. An increasingly popular way of capturing these goals and metrics is the framework known as Objectives & Key Results (OKRs).

In many ways it's just a more modern and slightly more structured approach to KPI's. Whichever method or language you prefer, the bottom line is the same. You need a few clear objectives with defined metrics that enable you to measure the current situation and the impact of each initiative you choose to pursue.

Moreover, it is good practice to break OKRs into a hierarchy, making it evident which KPIs impact others, which is also apparent in leading and lagging metrics.

A lagging metric is something that you would measure from the past, which would indicate progress - so last month's sales for example. A leading metric would be something you can count now, which would demonstrate an impact on the lagging metric - so visitors to the web site for example, i.e. more visitors is likely to lead more sales.

Let's look at an example with e-commerce, perhaps the most measurable of all digital businesses. Ultimately, the top-level objective is likely to be to increase revenue in a way that is sustainable and profitable.

That objective could be the amount of revenue in a month. But to drive revenue, the objective needs to be broken down further. In the world of e-commerce, there are some relatively common things that, if improved, will lead to higher revenue. For example:

- Increasing the number of relevant people that visit your web site
- Increasing conversion (the percentage of visitors that buy something)
- Increasing average order value or basket size (the amount each customer spends per order)
- Increasing how often customers come back and order again
- Increasing the duration that they remain engaged as a customer

Achieving improvements in each of these areas will increase revenue. However, this is just an example. Each business will need to decide, define and align on the objectives and key results that matter most to them.

## Analytics: Know your numbers

All objectives must be simple enough for everyone to understand and be measurable.

Analytics can provide you with the data to track the results. Looking at analytics and tracking these numbers needs to become a habit. It's easy as an individual business owner or blogger to be excited by analytics and be monitoring the numbers very closely.

In a much larger business, it's possible to lose sight of them altogether or review them monthly several weeks after the month ends, which isn't enough.

According to the Gartner quote referenced earlier, "Data and analytics need to be woven into everything". They need to be part of every conversation and every decision.

You need to create a data-driven culture, where asking for a discussion or decision without the data to back it up isn't acceptable. If you're going to make or ask for a decision, bring your data and know your numbers.

It sounds simple because analytics solutions have been around for as long as the web has existed. But instrumenting all your digital products or touchpoints with the customer to measure the outcomes in a larger business can be a problematic and unwieldy task.

It is imperative to get alignment across all functions of the business on the objectives and key results, and alignment on which metrics to measure and how they are defined.

A regular review of the numbers is a must. But more important is the habitual use of this data in the everyday operation of the business.

## Innovation: Hypotheses and experimentation

Once you have defined and aligned on your objectives and key results and implemented all the analytics you need to track your numbers, the real work begins. That's the work of using innovation to drive the numbers.

The knowledge that your people have, feedback from customers, market and user research, and insights from your analytics data will give you inputs into what you could do to drive your business and outcomes forwards.

But which ones should you do and which should you not?

Firstly, the prioritisation process and decision about which ideas to pursue should also be data-driven. Perhaps you have some user research data, some data from your analytics solution that highlights a problem or opportunity, or you have some data on the number of customers that call your contact centres about something. Whatever it may be, data should always beat opinions.

Once you have decided which opportunity you want to work on first, it needs breaking down into the smallest, testable experiment that proves it will have the desired effect before it is fully developed.

Your people need to become well versed in hypothesis generation because until there is data to prove it, any idea or opinion is just that, a theory. The challenge to ask of your people is this:

- What is the simplest possible way to prove or disprove the hypothesis, without necessarily implementing the full solution?

Testing hypotheses like this could avoid an enormous amount of time and money spent implementing solutions that in the end, don't have the desired impact.

Finding ways to test without fully implementing a solution requires much creativity. We need to come up with ideas and multiple variations to try as well as possibly not having everything readily available to us just yet.

Some organisations do this by running test ads or test features on their web sites that test whether or not people engage with it. If they do, they might sign them up for a waiting list

for when the feature or services is available. You run the risk of disappointing customers, so it's always best to test ideas like this on a small percentage of your users.

A/B testing tools can enable this. They can help you to target only a small percentage of specific customers with a test like this and measure whether or not people engage. If they don't, or the numbers are disappointing, A/B testing tools can also run various experiments to see what impacts people more.

Perhaps it's the messaging, colours or the placement of the feature.

Instead of people arguing about the "best" design, running experiments can show us which version delivers the best results - which is what it means for facts to matter more than opinion.

More than just testing different versions of the same idea, running multiple experiments can expose which opportunity drives the metric the most. Only once you have data to prove that people will engage with your vision should you move forwards into implementation.

Sometimes a feature or service needs to be implemented to a large extent before there is an opportunity to test. Another way to reduce the effort involved to validate an idea is to implement it but not necessarily in a scalable way. For example, maybe some activities behind the scenes are manual rather than automated at first.

Using A/B testing tools to limit its exposure can make that manageable, even if some things are not scalable yet. Then, if it passes the experiment, it can be made scalable before rolling it out to an increasingly higher percentage of users.

Making decisions about priorities in this way requires a culture change and changes the way people work. It requires people to buy into a data-driven approach, implement new tools and learn new skills.

## Data Platform: Build the right platform

In addition to analytics and a data-driven approach to drive measurable results, it is often possible to aggregate, analyse and surface other data to drive better outcomes. There are probably millions of different things that could be done with data, depending on what data can be made accessible to you and how it can help to deliver something different or better for your customers.

**"Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted" - Albert Einstein.**

Therefore, as mentioned earlier, it's best to start at the end and work backwards from specific outcomes and ideas, rather than fall into the trap of gathering all sorts of data just in case it can be used.

Having clear cases on what you want to achieve with the data will focus your data projects on specific outcomes, rather than spending much time and money on things that may never be useful.

## Data projects are expensive.

The expertise required to implement data projects is expensive, and the complexity means it is usually a lot of work. Unless you focus on specific outcomes and only the data needed to drive them or test your ideas, it is very likely to be a money pit. When you do know which outcomes you are looking to focus on, and you have the analytics in place to measure the results, the innovation and experimentation culture and tools will no doubt give you many ideas.

The areas that can be enabled and supported by the implementation of a data platform fall into two key areas:

1. Insights to drive better decisions
2. Enriching your digital products through the use of data

Let's expand on that and give you some examples for each area.

## Insights to drive better decisions.

Firstly, Insights. Making the right data available to business people, product managers, engineers, data scientists and analytics experts can create a gold mine of information to support better business decisions, ultimately leading to better outcomes.

How do you achieve this democratisation of data? A data platform needs creating in a way that enables data to be accessible and usable by everyone throughout the organisation - which is not easy. However, there are an increasing number of tools available to help with this objective.

It is essential to start at the end and work backwards. Knowing what hypotheses you are trying to prove or disprove, or knowing what business problem you are trying to solve will help to prioritise what data to collect, how to process it and in which form to make it available.

For example, if we look at the e-commerce metrics used earlier, and you have a problem with conversion, or you believe (hypothesis) that conversion should be better. Data scientists or analytics experts could use the data to answer the question about why users drop out of the process.

The data and analytics implementation would need to focus only on what data the experts need to analyse to answer that question. Based on the analysis, insights and ideas they come up with using this data, experiments can test their theories to understand which have the most significant impact.

## Enriching your digital products through the use of data.

Enriching digital products through data is something we all experience every day in our day-to-day use of the internet, as many of the world's leading tech companies excel in this area. Let's look at a few examples.

Google collects enormous volumes of data about web sites and searches made by consumers, amongst many other things. Google uses that data to provide us with more relevant search results and to make sure the adverts are relevant and targeted on things we might actually be interested in.

Netflix uses data about the shows and movies we watch to make highly relevant recommendations that are more likely to drive engagement and retention of a customer's monthly subscription. Additionally, they use this data to make decisions on their Netflix Originals content.

Amazon uses data about what we search for, what we purchase and what others purchase with the same products to recommend products that we might like or products that go with what we're buying, both of which increase conversion and the average order value by up-selling related products.

There are many good examples like this, where personal data is respected, secured, and only used in the ways in which are indicated - which otherwise highlights a significant risk and another crucial consideration when building a data platform.

Nevertheless, aggregating data in your digital products is likely to enable you to enrich your customer's experience with features like this, also leading to better, measurable outcomes for your business.

Machine learning can also improve the results with features like these. Numerous different machine learning algorithms are available to generate recommendations, for example. Testing many of those algorithms with an A/B testing framework would enable the system or 'machine' to serve the better-performing algorithms more, therefore increasing the results as the better performing versions are shown more often to end-users.

There are many more complicated things you can do with machine learning, but this is a relatively simple example of how analytics, data, A/B testing and machine learning can be combined to drive better results for you and your customers.

Creating a data platform with the right data, tools, and capabilities is a complex and complicated job. However, the results can make the difference between competing in your industry or not. Creating a data platform that allows you to gain new insights for better decisions and also to enrich the experience of your digital products is now considered to be the key to a successful digital business.

## Culture, Skills and Capabilities: People will need to change how they work.

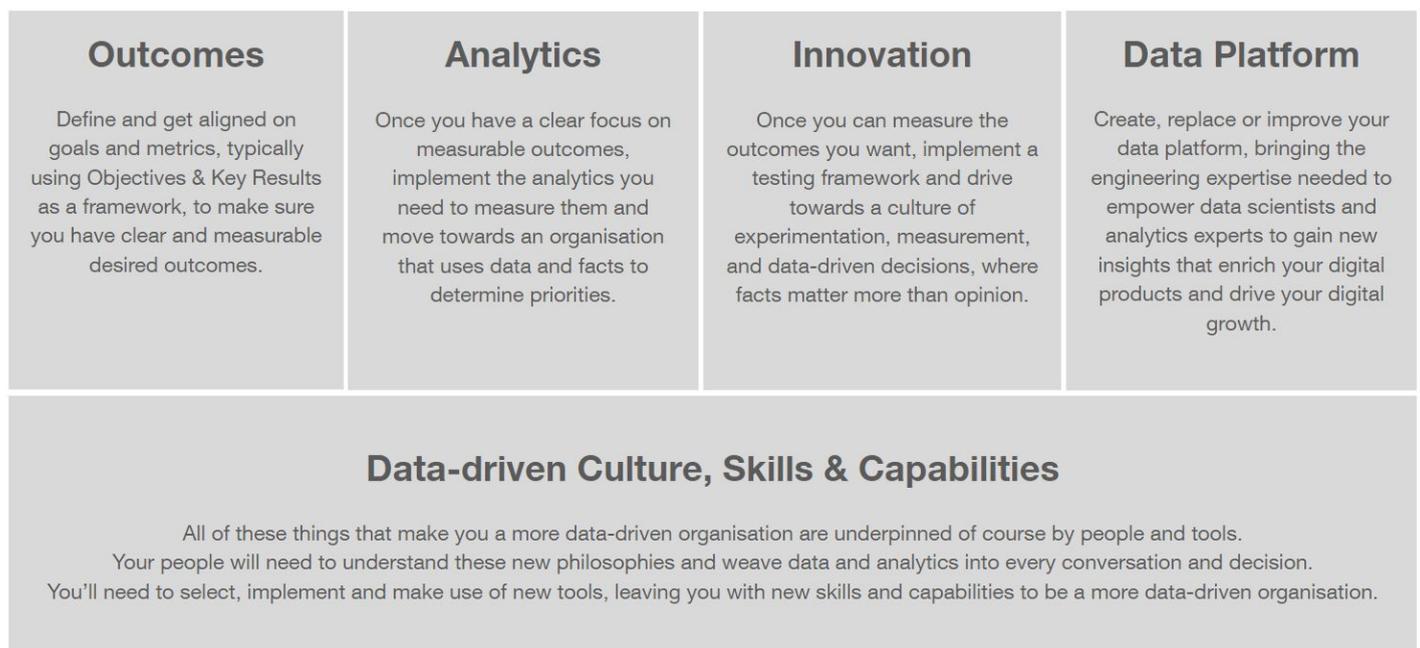
Implementing all of these things has the potential to make your business a more data-driven organisation. However, they all depend on people. Your people will need new tools, new skills, new capabilities, and new ways of working.

Above all, they will need a new philosophy which will need alignment across all the functions of your business and requires embedding into the fabric of your organisation - every conversation and decision. These new ways of working need to become habits. Habits that make it your default way of doing things. Habits so ingrained that it's instinctive and becoming a data-driven organisation is no longer something you talk about; it's something you are.

Achieving this, along with all the practical elements involved, is a significant transformation. Becoming a more data-driven organisation isn't a small undertaking. It is likely to be a multi-year programme of learning, experimentation and evolution.

It's likely to require a significant amount of help and be full of pitfalls and bumps in the road. No doubt, you will encounter failures along the way. Only the most determined companies will make it happen. But these are the companies that will most likely succeed in the 2020s, as this is the data-driven era.

## How to become a more data-driven organisation



## Find out more

101 Ways produced this report. 101 Ways is a consultancy that helps companies to become more data-driven, providing strategy, advice, leadership, coaching and technical delivery. To find out more, visit [101ways.com/data-driven](https://www.101ways.com/data-driven)

If you would like some help in becoming a more data-driven organisation, please get in touch with us. If you are the person driving this mission in your business, we can help you.

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