

WHITE PAPER

9 steps to becoming a data-driven organisation from the ground up

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Why be data-driven?

'Data' has been a leading buzzword around organisational change for the best part of a decade. It all started with 'big data', then snowballed through concepts such as data laking, data visualisation, data analytics, and even 'data-driven decision-making'.



What does it all mean?

It's really all still simply about data. And how, at this point in time, any business wanting to truly succeed will need to be data-driven – not just in 'decision-making', as referenced above, but in everything. Data should lie at the heart of an organisation's philosophy. Data can drive customer relationships, R&D, marketing, post-sales support, HR – almost anything, essentially.

Uber is nearly always the brand and business experience that sits on most people's lips when thinking about data-driven organisations, and with good reason. Uber is the ultimate data-driven middle man. It owns no cars, it employs no drivers. It simply uses data to connect customers (people needing a ride) to services (drivers willing to carry them).

But one of Uber's earliest hires was a Data Scientist, making the organisation completely data-driven from the start. That's an excellent proof of concept to suggest that planning your enterprise correctly with data will lead to the kind of disruptive victory – as traditional cab drivers continue to protest to city authorities, with increasingly limited success – that cements the change of a model and an ongoing success.

Taxis aren't the only examples of a traditional industry that's been flipped on its head by embracing data-driven approaches, either. Metro Bank found itself, in 2010, the first new UK bank to open its doors in 150 years, an aggressive digital strategy soon leading its approach, recently culminating in beating digital

challenger Monzo in being the first AI-based 'smart spending' app.

Meanwhile, \$14bn mattress company Casper credits itself with using data analytics to optimise its product experience and surface key data insights across the organisation – keeping both customer and key employees in the loop with a data-driven strategy.

From Tesla's lightning fast response to software updates and hardware modifications, to Hired's automated and highly customised approaches to recruitment, there's almost nowhere that a good data-driven approach won't fit into a business.

As long as it's people-shaped, data will always have a place in connecting customers and services. A data-driven business means decisions can be quickly taken every day, the impact of getting decisions right or wrong can be almost immediately measured, and – as a result – can have enormous impacts on an industry very quickly.

While the potential benefits of a data-driven approach are clear enough, the journey to that goal can be difficult and complex to navigate.

Keep reading as we identify first the main challenges facing an organisation wishing to become data-driven, and then detail Mango's nine-step process, split into three stages.



So what's stopping you going data-driven?

There are of course challenges and resistances to just suddenly adventuring into a data-driven company model. Here are the main ones:

You're going it alone

To refer back to the buzzword bingo at the beginning of this paper, the temptation to 'do data projects' in any enterprise is still as high now as in a less advanced age. Particularly in a situation where you're lacking wider organisational support, the scope to do anything meaningful with 'big data' is severely reduced as low or no board buy-in restricts your ability to spend money, time or human resources on a truly data-driven approach. This can often lead to a grand overhaul plan yet made to feel like a dissatisfying one-off process. As project manager, you may then end up being faced with the added risk of having to account for the budget you have spent not meeting the expectations the organisation was complicit in disallowing you from shooting for.

You're using analytics only as a tool

As above, this is what happens when the scope of your project is so small or simple, you're falling back on using a data-driven approach simply to build an isolated tool or service for a narrow aspect of

business use – applying your new data insight ability to established business practices instead of letting it redefine them.

This will see little in the way of positive, major change across the organisation, and instead a growing understanding that data insight will just be something that can be called upon as an occasional resource on a case-by-case basis. The immediacy and agility we've already discussed may be all-but lost in this situation.

You assume data can meet any challenge

This is essentially the opposite of the challenges already explored. Data isn't the answer to absolutely everything, and never could be. Data may be 'the new oil', but a barrel of oil is no good whatsoever without the engine to run it through.

Unless an organisation is built – or renovated – from the ground up into an infrastructure and human environment that can support and grow data-driven ideas on an agile and reactive level – as and when they are suitable – the capacity to overreach and believe in the promise versus the reality is high.

How do you begin tackling these challenges and building your data-driven company approach? Here are our nine steps to success, in three stages of execution.

STAGE 1 Building an effective analytics capability



Step 1: Develop your analytics community

You may have put together your organisation's first ever – and only – data science team, but that doesn't mean you've single-handedly introduced data analytics. There will be people already working with data, and it's your job to find them, get them on side, and start sharing ideas and practice.

Excel wranglers, AI skunkworks side hustles from hobbyists in the IT department, and the HR manager who's becoming increasingly interested in data-led people management. They all need to know you've come to town.

ACTION POINTS:

- **Build an identity**
Create a team ethos, design a logo, build an internal web page. Whatever it takes, start to give data a poise, a mission statement and a joint vision that integrates with every part of the business it can affect.
- **Communicate**
Slack or Teams channels, lunch 'n' learn and project groups to tackle genuine, immediate data challenges. And involve anyone who's interested, whatever their credentials or abilities. Data is for everyone, and you'll appreciate the enthusiasm and the insight.
- **Promote technology**
Technology is obviously essential to data insight-based development, and one great way to get people involved is by meeting the wider tech community. The LondonR conference is one great example – a conference that's sprung up from people passionate about the business intelligence and analytics language R. Internal hackathons and other events are another good way of getting ideas and concepts thrown together on the fly.



Step 2: Build best practice

Once the community has been built, it's time to start establishing best practice, and a true direction of travel.

ACTION POINTS:

- **Agree objectives**
What does "good" look like? Start there. From there, after having worked backwards to where you're beginning, you can start to look towards "best" as you begin to achieve practicable examples of "good".
- **Form a common language**
A range of skills will have come to you from all over the organisation, and outside. You need to learn to speak the same way. All experience and context need to be woven into the way you speak together from now on – so nobody gets left behind.
- **Rethink technology and approach**
Best practice should be applied to all your technology, and all your existing or planned working practices, drawing them together into that shared philosophy. From the analytics platforms you'll physically use to DevOps teams, it's not about a 'one size fits all' approach so much as having every use case and trajectory fit under the common goal umbrella.



Step 3: Apply analytic governance

You know where you're heading and how it should look, but how will you ensure it all runs smoothly as you travel? That's where governance comes in.

ACTION POINTS:



Define

As an offshoot of what we've already discussed, keep defining everything, for everyone. In the context of governance, that means aiming for clarity and consistency of the mission statement and its component parts. Ethics also need to be laid down at this point, and obviously need to be not just a set of defined analytics ethics, but also to marry with the business's data ethics too. Feel free to add to and challenge even those core concepts. GDPR would have come along a lot earlier if the status quo had been challenged harder.



Prioritise and measure

How will you value and prioritise what you do to ensure technical alignment and understanding of models, and when they'll need rescoping and retraining? And how do you measure the value of what you've built in the meantime? It all needs defining this early.



Deploy

Work out how and when you'll deploy, and how you'll measure and monitor analytic outputs. This can also include mentoring staff in the right way – perhaps by enlisting commercially-experienced data scientists are available to support and review your plans, guiding your teams through the complexities of generating real value from your data.

Steps 1-3 have now provided you with a consistent and coherent analytic capability focused on delivering value via high quality analytics. To return to the earlier analogy – you've got your 'new oil', you've built a fantastic engine – now it's time to make sure it's driving the car...

STAGE 2 Engage with the business & build momentum



Step 4: Educate the business

This is one of the big ones. Without business buy-in across the vertical, you're not going to get the effects you've dreamed of. Education is about creating and implementing a common language. With a traditionally considerable gap between the analytics and business teams, there's a bridge to build. To enable the entire business to get on board with the data-driven opportunity, everybody needs to have the same outlook from the start.

ACTION POINTS:



Explain clearly

Run regular training and information, introduce everyone who can invest or benefit to the core concepts of what you're doing, and bring them physically and emotionally on board.



Bring use cases

If you can apply how data can or has worked to parts of the business they recognise, they'll understand better. Conversely, memorable but relatable use cases from outside the business will work very well, too.

Step 5: Focus on decisions

Once the business is becoming educated, people will start to separate out into different camps. There will be those who take a course, tick the box, and forget all about it. There will be those who are inspired, but don't know what to do next, and there will be those who are both inspired and have lots of ideas to bring to the party.

ACTION POINTS:

Record

Seek out the most inspired and brimming over with ideas, and get those ideas down on paper in workshops.

Focus on “decisions”

Ask your workshops what they feel success looks like – which you can compare to your own vision – and the key decisions they feel need to be made to get there. Ask them if they could time travel to next week and learn something new to help them now, what would it be? It's all about perspective.

Step 6: Prioritise and execute

You're now reaching the point where you've put in place data policies, plans and models into your newly-built data community, and augmented it with the best, most creative examples of data enthusiasts among the lay workers. It's time to get going.

ACTION POINTS:

Gauge value

What do you do first, how and when? What order do you prioritise processes and projects to interweave most effectively with the wider needs of the business? You should have enough brains in place now to figure it out.

Cement readiness

Does everyone know what they're doing, when and why? Are they all clear on their and everyone else's end goals?

Objectives

It's worth going back to the start and figuring out, one last time, just why you're doing all this, and what the near and far goals are.

Steps 4-6 have seen you through education, further education of bright young things in data, and the set up, prioritisation and execution plan of your data-driven strategy and models. You've achieved some tactical wins and even generated some isolated value in your early projects. You're hungry for more. The time is now. Ready to launch? Let's go.

STAGE 3 Making your data-driven strategy repeatable



Step 7: Measure success

That inherent danger of the grand analytics project that launched brilliantly and became a one-off or single use initiative is still present, even this far down the line. You need to stop your data-driven strategy becoming that legend that burned brightly and faded out.

ACTION POINTS:

○ Monitor and record ongoing success

Be prepared to answer board questions such as “How much value has the analytic function delivered to this company in the last year?”

○ Store and report the value your model has introduced

If it's made a fundamental change, that needs to be easily obvious to everyone further down the line.

○ Make some noise

Leverage your data enthusiast network and your power users - your data-driven heroes - and make sure everyone knows what happened. Your early adopters had faith in you and added their enthusiasm and their ideas. The business needs to know, so the innovation can keep flowing.



Step 8: Measure maturity

You've done it. You're there. But where exactly are you? The journey's begun, that's for sure - but it's far from complete. Even if you've delivered measurable benefits from what you've done, there's still a danger your successes will still - after all that effort - be viewed as siloed activity. This can't be allowed to happen, though.

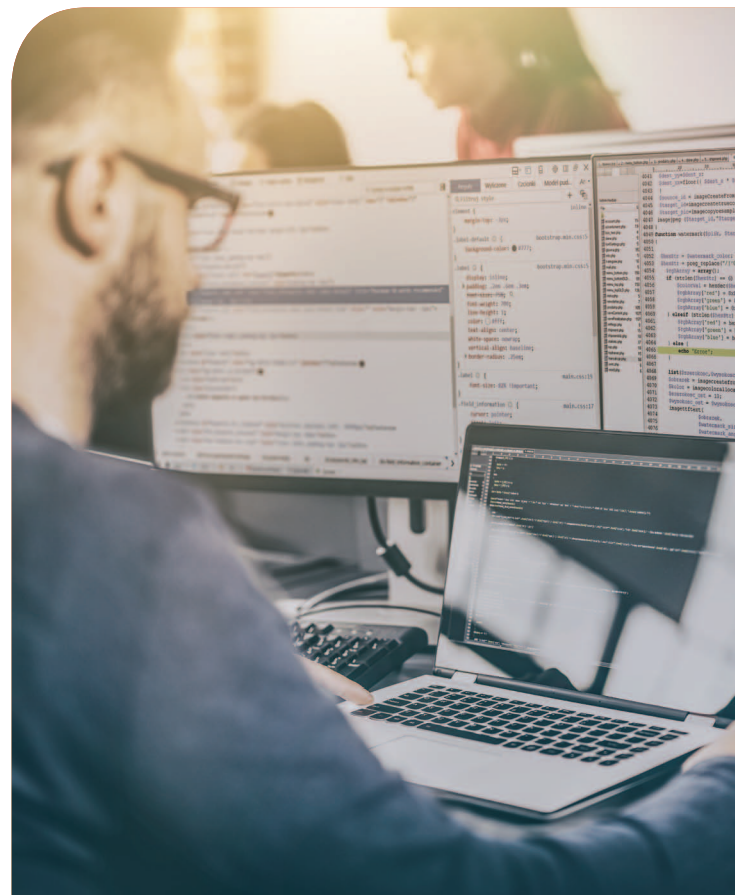
ACTION POINTS:

○ Shift focus

From the recent delivery to the overall future possibilities. Keep reminding people that what's happened is just one of a great many future ideas.

○ Measure the business

It's not just about measuring the project itself, it's about figuring out where it's up to in terms of the business's general data-driven trajectory. How much has what you've done changed the direction of the business's activity? And what can you do next time to keep pushing that?



Step 9: Find alignment across leadership

You've got projects in the bank, your benefits and proof points are measurable, and you may even have managed to swing a few board members to your way of thinking as you've gone along. But now it's time to engage the leadership en masse, wallow in your glory and really sell-in the next step of your data-driven organisational strategy.

Stick to the big picture

The higher leadership and the board want the Cliff Notes. Take them word of your success, but stick to how it's affected the bottom line, ROI, and include some encouraging stats on how all your data 'stuff' will grow quarter by quarter.

Identity priority business areas

That said, also don't be afraid to show the C-level hot takes that pertain to their specific area of interest. If your data insights will slash spend in marketing in specific ways, don't be afraid to tell the CMO how. It helps to make the stories interesting and engaging, but even if they're not at this stage, as long as your findings reaffirm existing (and good) assumptions, that's just as valuable.

Case studies

The big one, and related to the above point. Put together stat-filled, attractive slide decks that tell a story. Any of the stories we've touched on above. How you got here, what it means, what you've achieved and most importantly – what you can achieve next, along provably similar lines.

Conclusion

You've probably worked it out as you went through this paper – taking your organisation on a data-driven journey isn't going to be easy, or particularly straightforward.

But you've probably also gathered the experience leans extremely heavily on people and processes. In an enterprise environment, an endeavour involving data lends itself naturally to people. Data is exciting, inclusive, and more often than not reports directly on the wants and needs of people, too – your customers.

Backed up by the right solutions and technology, you can stimulate your homegrown data-driven enthusiasts to become experts in their respective fields, get exciting and measurable results, and then convert the board at scale with case studies, well-argued and provable benefits, and ever more exciting plans and projects.

About Mango Solutions

Mango Solutions is a data science consultancy that specialises in helping businesses benefit from becoming become data-driven. Its team of Data Scientists and Data Engineers enables companies to use advanced analytics to create operational acumen that improves business performance. Services include strategic advice that addresses fundamental business challenges to transform data into a business asset; data science solutions aligned to driving use case value; training and upskilling through educational programmes and data engineering to create an analytic environment. Mango also offers data science products -ValidR, Data Science Radar, ModSpace and Navigator Workbench.