MANAGING BI PROJECTS IN MANUFACTURING

The Ultimate Guide to Drive Effective Change

NUKON

CONTENTS

INTRODUCTION

> If you do not change direction, you may end up where you're heading
>
> — Lao Tzu

The idea that businesses need to change in order to be competitive has been parroted so often, for such a long time that it's easy to dismiss its core truth.

Part of the wariness with these discussions stems from the fact that change is too often equated with bunging in that nifty piece of software that promises so much but ultimately delivers nothing but disappointment, and for those in-house championing the change; professional egg on the face or a quiet handshake from the boss and directions to the nearest exit.

There is a link between fundamentally knowing that change has to happen and knowing how to effect that change in a painless, dynamic and successful way.

And never has this been more evident than in the manufacturing industry. Organisations can no longer afford to be reactive to the changes the market demands — a desire for a wider range of products, delivered faster at competitive prices. Rather, they need to figure out ways to optimise their processes and improve their products, or risk losing market share.

Yet there are still fears, beliefs and hype-cycle fatigue that need to be combatted in order to pave the way for systems that have the potential to revolutionise the organisation.

So how do you ensure that the systems that you have promoted will not only be implemented but will achieve the anticipated outcomes?

The answer is that it's not in the technology itself but in the way you approach the change — that is the crucial difference between yet another project that doesn't come up to speed and one that produces the desired results.
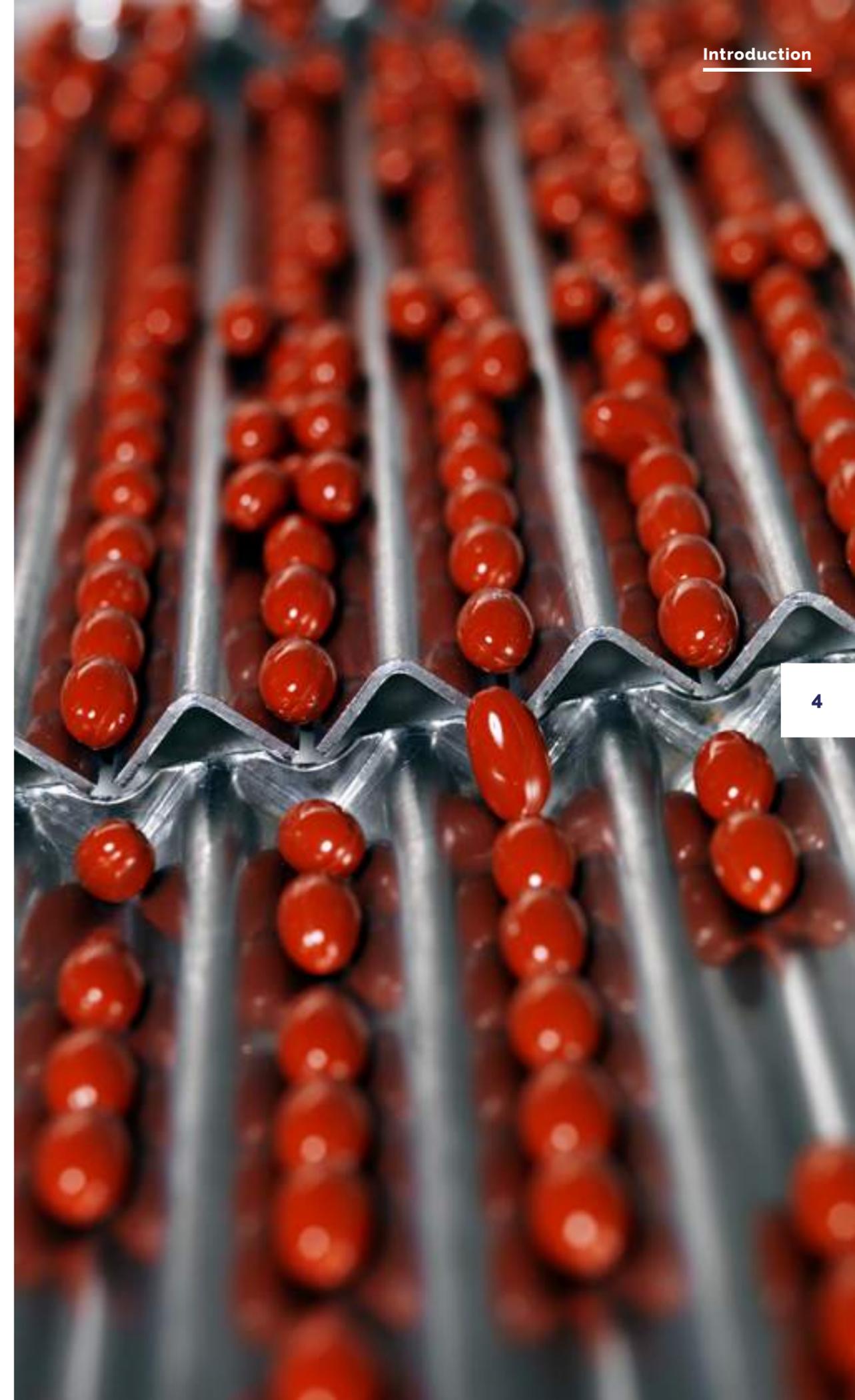
KNOW WHAT YOU'RE UP AGAINST:

WHY CAN IT BE SO HARD TO ACHIEVE USER ADOPTION?

The success rate of all change initiatives is 54% — which is actually quite a low number considering the amount of financial and human resources that are being invested in these kinds of projects. The biggest mistake change-managers make is thinking that communication is the same as engagement.

— DeAnne Aguirre, Senior partner at PwC's Division Strategy

Every industry has its perks and quirks, and manufacturing is no exception. In order to achieve a project's desired outcomes, it's important to anticipate what some of the objections could be and how you might ultimately combat them.

Communication:
Connecting with people via information

versus

Engagement:
Listening to what others need and actively involving them in the process, whether that's through decision-making, providing feedback or problem-solving.

6

UNDERSTANDING THE DIFFERENT DRIVERS BEHIND OBJECTIONS

Before embarking on user adoption it is critical to understand some of the fears and reservations that might impede the project's progress. We've looked at some that you may have come across.

Lack of requirements-gathering

Another day another piece of new gear. Is this third time lucky? Or are we up to number four?

Too often company prophets preach about the Next Great Software Solution that will single-handedly solve all the business problems without pausing to think about how the technology will fit into the broader business strategy. And, while this might be enough to get budget to start a pilot project, it often means that the wrong technology is purchased without properly gathering and evaluating user requirements, which will ultimately mean that it's not adopted properly.

One size doesn't fit all

Can't we just Google it?

There is a perception that you can buy a BI program off the shelf and it will start working immediately. However, in manufacturing, this type of software needs to be highly customised in order to derive the proper value. If a piece of technology is not implemented properly it's unlikely to gather traction in the business.

Cynicism and the Technology Hype-Cycle

If I hear the term 'big data' just one more time, I'm going to pop a vein!

BI has been the Next Big Thing (the DISRUPTOR) for at least 10 years and, particularly in manufacturing, it hasn't lived up to the hype, so there is a bit of cynicism that has to combatted.

According to research conducted by Manufacturing.net earlier this year, more than 85 percent of manufacturers have not invested in higher levels of IoT.

What all of this boils down to is that:

Technology without strategy = a plan to fail

Silo mentality prevents cross-functional collaboration

Work with IT? Is this the comedy part of the meeting??

One of the biggest issues in adopting change is getting departments to co-operate, departments that may have been… unenthusiastic about working with each other. However, as engineering technology becomes more sophisticated and IT systems become more powerful, the days of happily working apart are coming to an end. In order to make real progress in the manufacturing space it is vital that departments learn to get along, which is easy to say but tricky to accomplish.

In order to implement a BI project effectively you need a way to combat these perceptions and demonstrate how the change *will* improve the lives of those using it as well as creating the desired return on investment.

HOW DO YOU MAKE CHANGE HAPPEN (AND ENSURE ITS SUCCESS?)

Your life doesn't get better by chance, it gets better by change

— Jim Rohn, Entrepreneur

There is the mentality that humans are naturally resistant to change, and there are many reasons why this might be the case. From concerns about the amount of work implementing a change will create, to outright fears that new technology might even supercede their role, change can cause uncertainty.

Yet the reality is that humans are very adaptable creatures. We have survived (and thrived) in all sorts of environmental, social and technological upheavals over the course of our history. The truth is if we are supported in a transitional time, change can be a very positive and powerful experience.

Therefore it is vital that you truly understand the reservations colleagues may have about the change and be very proactive in engaging with them at every stage of the change. Rather than being worried about the impact the change might have, your colleagues will clearly understand:

• The role they will play during the implementation
• The role they will have after the implementation

And most importantly:

• How the implementation will make their working lives better

CHANGE MANAGEMENT:

WHAT IT IS AND WHY YOU SHOULD BE PRACTISING IT

Change management is a structured process that successfully facilitates the transition of people, tasks and resources from one area to another in order to achieve business outcomes. The two key types are individual and organisational change. Change management emphasises that change should be a process, not just a single decision or event.

You might be combating a lot of cynicism in your workplace because past projects have failed to reach the heights they were ascribed. And for many a key component of this failure was an inability to facilitate the change correctly.

In order to create meaningful change for those affected, you have to weigh up how the change:

- Will directly make their lives better
- Will affect elements that they love about their current situation
- What the effort and risk of change will be to them
- Whether the consequences of not changing will be worse for them in the long run

You then have to be able to articulate to all the stakeholders affected. Therefore, if change is to have the desired impact, **strategy is as important as the technology being implemented,** and a central component of that is ensuring key influencers are on board.

The Power/Interest Matrix

A very helpful way to do this is to use the Power/Interest (PI) matrix. The PI matrix will allow you to identify:

• Who the stakeholders are in your project
• Where they rank in terms of influence
• What actions should be taken in order to get their ongoing support

Using this as a guide, we've set up how you may approach it:

Ops Manager	Manufacturing Manager	Engineering Manager
CIO	Supply-chain Manager	Coworkers
Government	Senior team	Public

1. Who are your stakeholders?
Jot down everyone who is involved and who else may be affected by the project

2. Rank them
Using the handy table below, think about about your stakeholders in terms of both the interest they have in the project and the power they have. This will determine your approach.

For example, your team might be extremely interested in the project but not have a lot of power, so keep them across the project as they may be able to provide a lot of help with the project itself.

16

	Keep Satisfied	Manage Closely
	Monitor (minimum effort)	Keep Informed

High / Low — Power

Low → Interest → High

At the same time, your Ops Manager might have a lot of power and a lot of interest, so you must spend most of your efforts keeping them up-to-date and engaged with the project.

3. Know what motivates your stakeholders

After you've established how important it is to get them on board, you need to figure out a way how you might engage them. A great place to start is determining what drives them; by understanding their motivations, you can establish a course of communication. Some questions to ask of your stakeholders include:

What will they get emotionally out of your project?

What will they get out of the project financially?

What information do they need from you?

What's the best way to get in touch with them?

How would you characterise your current relationship with them?

What relationships do they have with other people in the business? Who influences them?

If they are negative towards you/the project what might factor in winning them over to your cause?

What are some of the challenges of their role? How does your project alleviate that?

A great way to gain an understanding is simply to have a chat with the stakeholders themselves. This isn't only a chance to get them to answer your questions but also gives you an opportunity to build a rapport with them.

High

Power

Low

Hans Gruber

Keep Satisfied

Andrew Boymann

Sean Chan

Manage Closely

Emil Gallant

Esteban Cigüeña

Monitor
(minimum effort)

Lyle Loplanes

Laura Palmer

Keep Informed

Clara Smithington-Belt

Low ➔➔ **Interest** ➔➔ **High**

Once you've got a sense of how positive your stakeholders might be, it's a good idea to colour-code them.

Advocate: Green
Neutral: Light Blue
Negative: Dark Blue

You also need to be thinking of the practical aspects of the project by establishing whether the software can be aligned with the existing systems and whether the software meets the user needs.

To do this, ascertain how well the software meets the needs of the user by establishing:

- Who will be using the software?
- In what capacity will they be using it?
- How will that affect their role now?
- How will the new software disrupt their role?
- How will it change who they interact with/report to?
- What is the estimated Return on Investment
- Have similar businesses used the technology? If so, what was the outcome?
- What are the consequences of not adopting this technology in the longer term?

Once you have established this, you have to ensure that you are clearly communicating to the team why the change is good.

19

SO, *WHY* IS CHANGE GOOD?

Change brings opportunity

— Dr Nido Quebein

You know that the software you've researched has the potential to completely change the way your business operates. But it won't succeed, no matter how fantastic it is, if you are not consistently communicating the good this change will bring.

An integral part of getting the message across is to ensure that the higher levels of the business are quoting from the same page as you. It's not good enough to promote the cross-functional adoption. As the objections show, you'll be coming up against quite a few (valid) concerns. You need to prove:

- Why the change is valuable,
- and what will happen if you don't make the change

WHY IS CROSS-FUNCTIONAL TECHNOLOGY SO VALUABLE TO A MANUFACTURING BUSINESS?

There are many reasons that cross-functional technology is crucial to modern manufacturing organisations. Manufacturing creates a staggering amount of data and, while businesses have long since realised the potential for this data, it's only now that they are harnessing the power the insights cross-functional technology yields.

It reduces the amount of time and resources spent sifting through data.

Example 1: In coffee roasting, there are potentially tens of thousands of different variables that can affect the outcome; the flow-rates, the temperature and the speed through all the different pieces of machinery will all produce a different result.

If you have a statistical tool that can discover relationships between data sets, you can pinpoint how certain conditions positively affect the outcomes. This means that you can discover relationships that would be impossible to uncover without the software and use them to improve your operations and the quality of the product.

Discovery: Business intelligence software gives new insights into the operational aspects of a business.

Example 2: A potato processing factory implemented BI. They used their existing data to create relationships in the yield by the variety of potato they were processing for chips. What they discovered was that there were significant differences in the yield between the various types of potato. This meant that they could select the more profitable varieties of potato for production.

Discovery A: BI software creates quick processes to capture and cleanse information in order produce the right numbers, which helps **to close down silos.** Traditionally, different departments work from their version of the correct number (which is what they base their KPIs on). Yet, with a single source of truth, departments are not going to waste time arguing about what the numbers should be rather they can focus their energies on how to improve that single number.

Discovery B: BI software empowers people to take risks — 'if I change this variable, what will the outcome be?' If you can record and assess the outcomes, you can have greater control over the process. Even if you fail, you have gained valuable knowledge that can lead to useful insights down the track.

In a nutshell, business intelligence software is a magnifying glass that allows you to discover the secrets hidden within your processes, that can optimise operations, encourage organisational transparency and create a better product.

CONCLUSION

For the times, they
are a-changing

— Bob Dylan

We know that undertaking change in any organisation can be stressful and painful. However, being able to anticipate how the project you are about to implement might affect your organisation will allow you to mitigate potential pitfalls and ensure that the transition is as smooth as possible. If you can succeed in this, it's not just a win for this project; if the end-result is positive, the business is more likely to be open to change in the future.

We hope that this ebook has helped you to see how you can drive a business intelligence implementation in your organisation. If you feel as though your business could use the latest, you should contact Nukon for an informal chat.

Office – 1300 909 360

24/7 support – 1800 960 360

info@nukon.com.au

Enjoyed this ebook? Share it.

25