The manufacturer's guide to a better future

Four key topics on how to intelligently transform your manufacturing business

FUSION5 Business Solutions

Microsoft

Making a better future for your business, starting today

There is a growing skills gap and a shortage of talent in the workforce. And environmental sustainability has become an imperative for you as a manufacturer, to do right by our environment and to meet your customers' expectations.

Manufacturers around the world are being disrupted. In order to compete and grow, they're shifting their focus from engineering and production to customer outcomes, and moving from making products to delivering products-as-a-service.

While the challenges may at times seem daunting, we are fortunate to live in a time where advances in technology give us the opportunity to impact our people, society, and planet for good.

Where to from here?

We have four key transformation topics that can help you stay competitive, while meeting the changing needs of your customers.

1. **Deliver new services**
2. **Empower your workforce**
3. **Optimise digital operations**
4. **Reimagine manufacturing**

Optimise digital operations

Deliver new services

Reimagine manufacturing

Empower your workforce
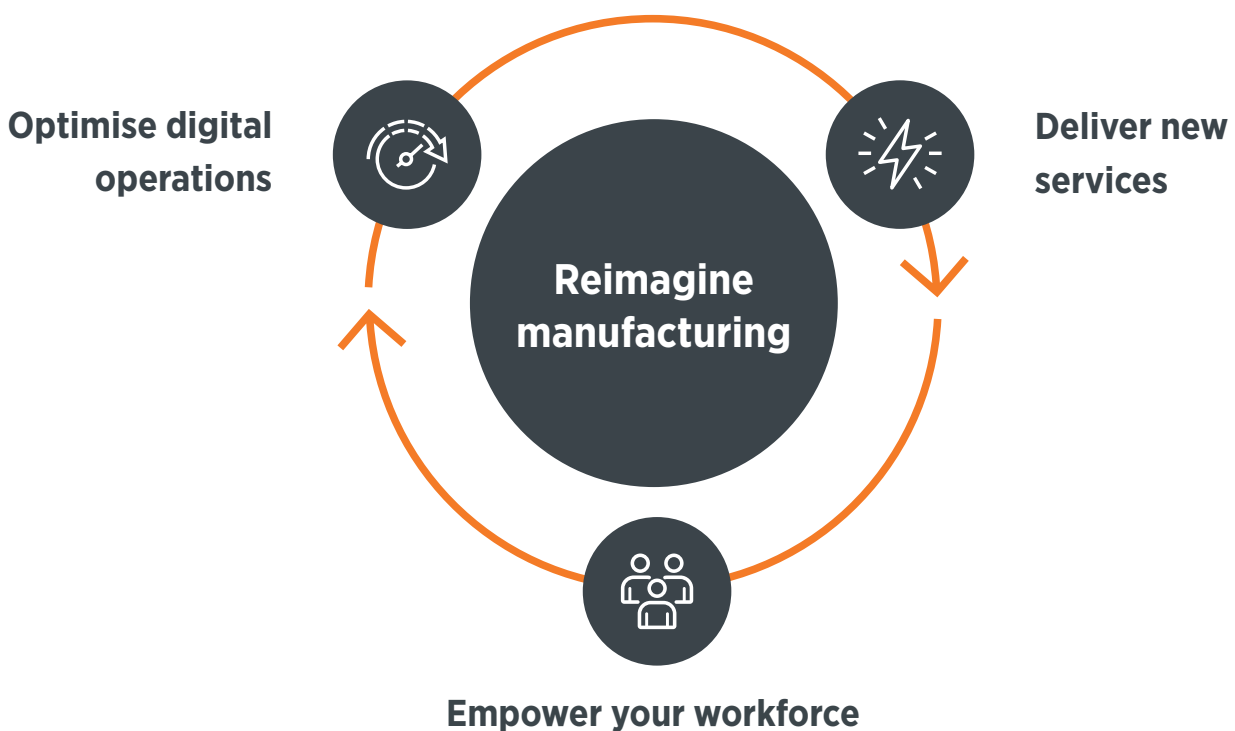
Deliver new services

Imagine staying one step ahead of your customers' needs, identifying the best times and processes to refresh parts, supplies, and equipment

Stay competitive, and exceed customer expectations

Historically, the relationship between you and your manufactured products ended at the point of sale. Today that's all changed. With intelligent products at the edge - from large industrial equipment to spray nozzles used in agricultural irrigation - all connected back to the cloud, it's created a digital feedback loop.

Those devices at the edge also provide a new connection to customers, allowing you to offer better services, such as proactive maintenance and remote monitoring, and generate new revenue streams. Predictive analytics is now the number one AI use case for enterprises across manufacturing.

By connecting people to devices using IoT, and identifying failure prevention patterns, you can reduce waste, maintenance costs, and downtime. Intelligent IoT (made up of smart devices) can safely deliver exciting new experiences on a flexible, scalable, and secure cloud framework that can power high-tech business models.

Keep your sellers matching the pace of your complex product and service portfolio to improve customer engagement and profit margins.

How?

If you can proactively engage with consumers throughout your product's life cycle, you can gain new insights and create AI-driven assets that target their desired outcomes. By providing enhanced services that deliver immersive experiences you'll differentiate yourself from competitors and cultivate lifetime customers.

So, now what?

Two strategies to deliver new services

1 Connected field service

Empower your sales and service teams to provide customised experiences to strengthen customer relationships and build brand loyalty

2 Connected sales and service

Customise sales and services to strengthen customer relationships and build brand loyalty

ADM Instrument Engineering

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Powering up with Office 365

"Collaboration, accessibility and security were our major goals."

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UMMI RAHMAN-BATES, OFFICE 365 PROJECT MANAGER AND IT ADMINISTRATOR

Established in 1986, ADM Instrument Engineering (ADM) is Australia's largest stockist of Mean Well power supplies, power transformers, industrial transducers & sensors, and test & measurement instrumentation. The staff of 23 is spread throughout the country, and their head office is housed in Melbourne.

Time to transform

ADM became frustrated by the limitations of their technology infrastructure.

For years they stored their data, email and accounting software on two on-site servers. Two IT staff, who are also technical engineers, were responsible for maintaining the servers and handling all IT issues. ADM's hardware and operating systems were a mixed bag. The Directors worked on Apple Macs, and the rest of the staff used an assortment of Windows 7, 10 Home and 10 Pro desktops and laptops. The Windows devices were purchased or built at various times, and each ran a different Microsoft Office suite.

Their email solutions were equally disparate. Most of the ADM team were using Mozilla Thunderbird, and only a few running Microsoft Outlook.

The only way that ADM's off-site employees could connect and access information was through the company's Virtual Private Network (VPN) run on the on-site servers.

But most importantly, ADM were concerned about the safety of their data should disaster strike. They knew that data should be backed up daily, stored off-site, and security patches diligently applied, but this wasn't always the case.

Collaboration, accessibility and security

It was obvious to ADM that their old ways weren't going to move them forward. Luckily, they had a clear vision of their objectives.

"Collaboration, accessibility and security were our major goals," says Ummi Rahman-Bates, ADM's Office 365 Project Manager and IT Administrator.

"We wanted the ability to have multiple users editing files simultaneously. No more waiting for someone to finish their bit before you can edit the file. No more multiple versions of the same document."

"We wanted our staff to have easy access to information, regardless of their location. Because connecting via VPN was inconveniently slow for our interstate, work-from-home and on-the-road team members, its use was kept to a minimum. Our Sydney and Queensland staff would even call the receptionist at our Melbourne head office to ask for information in preference to using the VPN."

ADM researched and shortlisted several solutions, including Microsoft Office 365 and G Suite, before settling on Office 365 as the most suitable (and lowest maintenance) solution.

The three-week roll out

ADM came to know and respect Fusion5 while considering a previous project, and they didn't hesitate to reach out for help in rolling out Office 365.

ADM's conversation with Fusion5 about migrating to Office 365 started in March 2017. The statement of work was signed off in mid-July, and just two days later, ADM's first user group of six went live with the solution. Over a period of three weeks the rest of the users, again in groups of six, moved to the new solution.

Training was scheduled for each group as they went live, and Fusion5 was on call daily for technical support during the rollout period.

ADM installed Office 2016 on their Macs, and standardised the 21 Windows devices to run Windows 10 Enterprise, Office 2016 and Windows Defender.

Goals achieved!

ADM achieved their goals of collaboration and accessibility through SharePoint (Office 365's document repository). Now multiple users can edit the same online file concurrently, and SharePoint is fully accessible online. And as Office 365 is a cloud solution, data is always safe and backed up, fulfilling the company's security goal.

ADM's staff can now access their emails and files when they're offsite. Their Office 2016 apps connect them to data via their smartphones - without using VPN. They can also log-in directly through their online Office 365 portal.

Office 365's Admin Centre features make it easier for ADM's IT Admin team to oversee IT administration. This includes mailbox management, checking the health status of each device, scheduling system updates and the bulk-install of applications.

Summary

ADM are enjoying the benefits of Office 365 and report that the migration project was a complete success.

"It was within budget, and it was definitely on time," says Ummi. "Fusion5 were very proactive in offering advice and strategies while I was initially researching the solution. Once we were engaged on the project, their team were flexible, knowledgeable, thorough and very helpful."

Empower your workforce

Imagine if you could attract, train, and retain an empowered workforce capable of keeping up with your new speed of business

Address the skills gap to keep up with digital manufacturing

As the manufacturing industry is disrupted by digital changes, the workforce you depend on is as well.

It's estimated that 75 million jobs will be displaced by automation and 133 million new jobs will be created between 2018 and 2021. This requires new and advanced skill sets and ways to collaborate.

You'll need to attract the next generation of talent while training your veteran employees at the pace of innovation. It's going to be on you to boost job satisfaction (to ensure retention), enhance productivity, and streamline decision-making with a fully equipped and empowered workforce. And you'll have to upskill your existing workforce and accelerate the training of your new workforce to keep up with this historic change.

How can you use technology to address the skills gap and keep up with digital manufacturing across your organisation?

Engage your workforce by automating the mundane. Free them up for more creative, rewarding and strategic endeavours on the front line like engaging with customers and partners.

Utilise AI and mixed-reality (MR) interaction models with robots/cobots to augment your employees' skills and improve shop floor agility, productivity, and safety.

Achieve new levels of safety and cyber/physical security with advanced technologies like ambient intelligence that reduce accidents, malicious incidents, product loss, and brand damage.

Leverage MR and team collaboration capabilities to redefine training and skills transfer to overcome skills gaps and keep pace with increased product and process complexity.

Enable your front-line workers to do their best work by unifying devices, data, relationships, and processes in intelligent apps that guide them through best practices and compliance requirements.

So, now what?

Three strategies to empower your workforce:

Address the skills gap and keep up with digital manufacturing across your organisation

1

Connected
field service

Equip your technicians with connected smart devices to deliver predictive service and enable proactive engagement throughout the product life cycle.

2

Connected
sales and service

Empower your sales and service teams to provide customised experiences to strengthen customer relationships and build brand loyalty.

3

Factory
of the future

Connect your employees to devices and processes by using industrial IoT and other smart technology to speed up production.

Cavalier Bremworth

Laying the groundwork for transformation with Dynamics 365

Cavalier Bremworth has been a household name in New Zealand for the last 50 years. The company is synonymous with quality, style and new product innovation, and has been voted NZ's Most Trusted Brand in the carpet category of the annual Readers' Digest poll for the last six years.

Cavalier Bremworth is a fully owned subsidiary of Cavalier Corporation, and is listed on the NZX.

The Wintergrate years

Part of the company's heritage is an inhouse 'stock and sales' solution called Wintergrate, which supported the business for some 30 years.

Three of the original developers made up the team internally maintaining Wintergrate, and their irreplaceable specialist knowledge kept the system running. However, no employee can be expected to stay forever, and any outdated technology creates a level of risk to a business.

Wintergrate's lack of financial and operational capabilities in particular indicated that it was end-of-days for the system.

Weaving Microsoft Dynamics into the mix

In anticipation of eventually replacing Wintergrate, Cavalier adopted the financially savvy Microsoft AX in the early 2000s and subsequently moved through several upgrades.

"When I joined Cavalier about six years ago," says Trevor Jones, Group IT Manager for Cavalier Bremworth, "it was obvious that Wintergrate presented all sort of issues for us. It was a mission-critical system, so if we'd

lost the resources to support it, or it failed, we'd have lost all of our sales, production and stock records. We wouldn't have known what to make, how to make it, who owed what, and what we owed them."

Jones prepared a three-year technology road map for the business in 2014, starting with an upgrade to Dynamics AX 2012 (on-premises) and the implementation of Dynamics CRM in its Australian operations. After a busy five years, which saw Cavalier divest itself of several subsidiaries and renew focus on other areas of the business, the company reviewed its 'where to from here' plan for AX 2012.

While upgrading to Dynamics 365 Finance and Operations was the next logical step, the Cavalier team was hesitant to make the move.

"We'd seen several Dynamics 365 demos from other partners," says Jones, "but weren't convinced that the time was right, or that there was enough local experience or knowledge to make the upgrade a success. It took a Fusion5 demo of Dynamics 365 at Microsoft to convince me. The Fusion5 Dynamics' team really knew their stuff and presented clear and compelling reasons why we should upgrade. And why we should do it with them."

The upgrade to Dynamics 365

The project led off with Fusion5 replacing Dynamics CRM with Dynamics 365 Customer Engagement. This laid the groundwork for implementing Dynamics 365 Finance and Operations.

Fusion5 and Cavalier decided on a technical upgrade rather than a from scratch reimplementation.

"While a technical upgrade sounds like a small job," says Jones, "there were lots of moving parts. We had to set up the new environment in Dynamics 365, set up companies within it, and there were some things that just wouldn't translate from one version to the next. I was keen to ditch a significant number of modifications as well."

Amazing invoicing

Once the solution was in place (sans the majority of the old modifications), Fusion5 implemented the procurement and accounts payable (AP) functions.

Previously, Cavalier's AP team manually scanned incoming invoices and then emailed them out for approval. Or even sent the physical invoice, complete with a handwritten pink slip, to the authorising manager. They tracked the progress of each invoice through the AP process on a spreadsheet.

Fusion5 recommended the adoption of SignUp ExFlow to automate the business's document-heavy invoice process, and to deliver the incoming data directly into Dynamics 365. Once implemented, ExFlow was a genuine hit with the business users.

"Now our vendors all email their invoices. ExFlow detects PDF attachments sent to AP email addresses, reads the invoice and pulls the vendor name, invoice number, and due date data into Dynamics 365 and automatically routes the invoice for approval to the right person," says Jones.

"It's a wonderful piece of software. It really does have a wow factor to it. It used to take three or four people to code invoice data, manage approvals and pay vendors at month's end. Now it's easy for one person to manage."

The end of Wintergrate is nigh

Cavalier took a carefully staged approach to implementing Dynamics 365 and phasing out Wintergrate.

And now, with financials and procurement firmly in place, the next step is to roll out Dynamics 365's manufacturing capabilities at Cavalier Spinners in Napier and Whanganui. A sizeable company with two large factories, they procure raw wool from another Cavalier subsidiary, which they dye, blend and spin, before sending it back to the parent company to be made into carpets.

Cavalier's goal is to create a foundational model for how inventory will be processed to decrease the complexity when Dynamics 365 is implemented into other parts of the business.

The bigger picture

Dynamics 365 gives Cavalier a single unified platform which reduces the need for costly and complex integration to other solutions. Their data accuracy improved, as did supply chain visibility, while operational lead times reduced.

And as a 100% cloud-based solution, it aligns with the company's move to Microsoft Office 365 and Azure.

"We've adopted a complete and modern desktop environment with the Microsoft always-on VPN," says Jones. "Our exchange servers and file servers are in the cloud, as are most of our business applications. Office 365 comes with so many new apps, it's difficult to keep up. But the beauty is that everything truly integrates with Dynamics 365. Very, very well."

Working with Fusion5

Jones has worked with a variety of Microsoft partners over the year, but enjoys the open, personal and less corporate style of Fusion5.

"I've found them to be consistently upfront, honest and transparent in everything they do," he says. "They're careful to set fair expectations, rather than overpromising outcomes.

"One of the critical things about implementing an ERP system is having a partner put the system through all the hoops for you first, so you don't have to make modifications later. They could do this because they know Dynamics 365 really, really well.

"Their support services work well for us too. It's a comfort to know we have a team of experts on hand to clear up any post implementation issues and tasks."

"Size-, price- and performance-wise, Fusion5 is proving to be the right partner for us."

Optimise your digital operations

Imagine if you could increase the flow of information across your entire business operations, keep your business processes synchronised, and improve your interaction with partners and your supply chain

Deliver the right product and service at the right time and margin

Today's market is full of feature-saturated products and super-competitive prices. You are not alone as you explore ways to generate new business value using digital services to build stronger relationships with customers.

In fact, 86% of buyers will pay more for a better customer experience and greater transparency. The growing need to customise products and services for customers means having agile and responsive end-to-end operations is more essential than ever. And getting the right products and services to the right customer, at the right time, requires integration of digital factories and intelligent supply chains.

By modernising your factory floor, you can create agile and responsive end-to-end operations and provide your customers with the customised products and services they demand:

- Integrate data from IoT with other product and customer data to create new insights into customers' desired outcomes

- Generate data-driven and AI enhanced products and services that differentiate in the new service economy by delivering customer outcomes

- Increase revenue and margins by providing a connected sales and services platform that increases productivity and compliance, and can keep up with new product and service offerings

  - Engage your customers with differentiated buying experiences that leverage MR and easy to use quote-to-cash processes to increase wins and margins

By embedding AI into your products now, you can supply personalised and intelligent assistance, predictive maintenance, and remote monitoring after your products leave the factory.

MR blends the physical and digital worlds, and paired with AI infused insights, you can use it to visualise products before they're manufactured, allowing you to change how you design, build, sell, and service your products.

So, now what?

Two strategies to optimise your digital operations:

1 **Factory of the future**
Speed up production by using industrial IoT and other smart technology to connect your people, devices, and processes

2 **Intelligent supply chain**
Take advantage of an optimised supply chain to produce the right products, at the right time, for the right price

Reimagine manufacturing

Imagine if you could gather user information from products and work collaboratively with a development team to improve products and develop new ones

Enter new markets and improve sustainability

By 2050, it's expected that manufacturing will need 400% more water and the agricultural sector will need a 70% increase in output to feed the world's growing population. All at a time when public awareness has increased about the need to conserve natural resources.

For you, this not only presents new business challenges to use resources efficiently and reduce costs, but presents an unmatched opportunity to generate value because of manufacturing's reach to all sectors of goods, products, and resources. While making the transformation to intelligent manufacturing, sustainability should be at the forefront.

So, how do you deliver social and economic impact by taking advantage of AI to conserve energy? Or preserve natural resources through sustainable manufacturing practices to decrease supply chain costs and increase brand integrity? By utilising technologies like digital twins, AI, and IoT to monitor, control, and save water and energy usage you can, and will, generate a smaller footprint.

Modern agriculture is already using these technologies to help yield more crops and ensure food safety. They are feeding our growing world by improving their productivity with affordable IoT sensors, machinery, and AI that enable precision farming, while growing the market for manufactured goods.

So, now what?

One strategy to reimagine manufacturing.

Connected product innovation

Save on physical resources and increase your innovation speed with digital product and process twins

Microsoft

FUSION5
Business Solutions

How do you enable your intelligent manufacturing transformation?

Microsoft empowers manufacturers to solve today's most pressing issues by arming leaders with the enterprise-grade business tools they need to augment employee skills, develop more sustainable products, and deliver the benefits of intelligent manufacturing to new customers and markets.

Start your journey to manufacture a better future.

Contact Fusion5 today to find out more.

Fusion5's team is experienced in helping organisations manage their in-field service needs, from skills, availability and location-based scheduling, to assets and warranties, to achieving a pleasant and viable user experience for in-field team members.

We are experienced implementers of Dynamics 365 Field Service in New Zealand, Australia, and further abroad. This encompasses traditional workloads such as pre-emptive and break-fix servicing of machinery, to inspections, to in-field medical and social services provision. We spend time with your team on the road to understand what will work and what won't, and just how Dynamics 365 can enable your in-house and in-field teams to collaboratively provide superior customer experience.

Dynamics 365 Field Service provides an ideal platform on which Kiwi and Aussie organisations can improve the effectiveness of their service provision. The solution enables efficient scheduling and provision of service on customer sites, as well as AI-driven schedule optimisation, route planning, a configurable mobile experience with full offline functionality, through to invoicing for parts and services – integrated to your finance system.

We are Fusion5

Fusion5 provides business solutions that add real commercial value to your organisation. Our focus is on making potential reality for our customers, and our people.

When we work with you, we don't recommend technology for technology's sake. What drives us is delivering outcomes that genuinely improve your business. Our unique experience and advanced understanding of the solutions we offer, together with innovative technology that can be wrapped around them, means we can offer 'fit for you' solutions that amplify solution benefits for your business.

We realise adopting new technology is not just a one-off activity - it requires change management, support, and continuous improvement to ensure your digital journey evolves with your business. We're here to partner with you through all aspects of the journey.

#makingpotentialreality