Make digital your New Year's resolution: Get set for 2024

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Take time to reflect and plan now

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Make time for yourself, reflect, review and react to new opportunities

Given the complexity of the last couple of years, 2024 will be crucial to success and recovery. If you're not already planning for it, you need to be – thinking about your strategy and reviewing your processes places you in the best position to manage the return to work post-Christmas. Implementing the right digital technologies can then help you put your plan into action and better adapt to the increased demand.

In this guide, we will show you the impact of making the switch to digital, how you can get more from your workforce, win more contracts and ensure 2024 is your best year yet.

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Take time now to reflect on the last year

At the end of a calendar year, it's tempting to recoup costs or prevent overspend to keep your budgets in check during economic uncertainty, but the advantages of digital means that investment doesn't have to be a burden. In fact, transformation can leave you with a bigger budget to work with.

This is because investing in technology can allow you to (among many other things) reduce inefficiencies and cut waste. On top of these benefits, you'll have fewer capacity and resource issues, and using technologies can even result in the creation of new jobs. Digital tools can actually increase your sales growth and give you an early adopter advantage – boosting your competitiveness as well as topping up future budgets.

Use your downtime over the festive period to think and reflect on your manufacturing processes.

- What are your bottlenecks? What areas need improvement? Do you have an aging workforce?
- Do you have goals for the year clearly defined?
- How can digital tools help you hit those goals?

Parity Medical, a MedTech manufacturer, were looking to reduce the number of miles that their sales and engineering teams needed to travel (around 270,000 every year!). With the support of Made Smarter, they invested in an off-the-shelf software package which allows them to work with customers via an online virtual showroom. This has the potential to cut annual travel by 30,000 miles and carbon emissions by 11 tonnes. As a result, they will achieve substantial financial savings, efficiencies and a better service offering to customers. The financial benefits are backed up by evidence too.

"It's fantastic that technology can make such a difference to our business while reducing our impact on the environment".

Steve Wood,
Managing Director of Patiry Medical.

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Overcoming the Digital Skills gap

While the digital transformation of the workplace is enabling us to design, make and deliver things better, faster and more efficiently, this technological change is creating jobs that are increasingly dependent on digital skills, adding to the rapidly growing skills gap.

Research suggests that around 20% of the UK workforce - around 6.5 million people - will be significantly under-skilled for their jobs by 2030.

Without the right people with the right skills work quality and productivity could be reduced, resulting in lost revenue and poor growth, increased staff turnover, and low morale. Manufacturers feel that pain acutely, with 80% struggling to find people with the right skills to fill their job openings.

The sector is also grappling with a labour shortage, created by a shrinking pool of workers following Brexit and the restricted movement of a valuable immigrant workforce, low unemployment levels, and the rise in those taking early retirement. The combined result is that manufacturing job vacancies are at a 20-year high, which according to Make UK is costing the UK economy £7.7billion - or approximately £21 million a day - in lost productivity.

Furthermore, the increased competition for talent is adding significant financial pressure to manufacturers who have to offer more pay and benefits not only to recruit but also to retain their existing workforce.

On top of the skills gap and labour shortage, the situation is expected to become more challenging. 20% of existing engineers are set to retire by 2026 creating an experience gap.

Existing skills

As well as looking outwards into the labour market, manufacturers should be looking at what they have.

80% of the 2030 workforce already exists in the workplace, reskilling and upskilling staff is a vital way of overcoming skills gaps and shortages.

It also means harnessing the knowledge and legacy skills in the workforce. Bringing together modern knowledge and experience in this way has the power to create a competitive advantage.

Human-centric manufacturing

When you combine the existing and emerging trends above, the clear direction of travel of the next industrial revolution is towards a human-centric, resilient and sustainable approach to manufacturing where people work alongside advanced technology to enhance processes.

On the face of it, this already exists, but the key shift in the future is seeing people as the ends, rather than as the means.

Data and systems integration

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The starting point for any digital journey is a review of your data

Often, one of the starting points for any digital journey is a review of your data – what are you currently collecting and what can you be using? Data is one of our most powerful tools across manufacturing.

Traceability

Some automating packaging systems have built-in printers and can easily integrate with enterprise resource planning (ERP) systems and process management software. They make it possible to manage batch numbers or order information, enabling you to successfully track the location of products. This supports quality control and customer returns, along with production planning. We've delved more into traceability here, but its value in building a Christmas strategy is clear.

Workforce management

Technology can help monitor productivity and efficiency in your people, and highlight any bottlenecks in your processes. Take **Fox Timber**, who make timber products. They spotted a few issues with their delivery service – orders were being delivered twice, and specific instructions that customers had given were being ignored.

With our support, they identified software that ensures their delivery drivers have all the information they need to complete their jobs successfully. It also gives the business a crucial insight into how efficiently they're doing this..

Demand forecasting

Another way data helps is through demand forecasting. This draws on AI and machine learning to identify trends from previous years' sales and predict future customer demand. You can then anticipate seasonal fluctuations, making it easier to plan your team capacity, inventory and production for peak periods such as Christmas. It can show both demand under normal conditions and demand after a variable has been introduced (such as weather or a spike in social media activity).

Stock management

Specific software can help you take orders, automatically creating the bills of material (BOM) and saving you a considerable amount of time. You could also use it in the opposite way – to check the stock of items and place orders with your suppliers of raw materials. We recently funded a maker with a stock management system. They've had a grant confirmed for software that integrates with their webshop
and automatically generates a pick list for the operator. It tells them where the products are kept in the stockroom, along with the most efficient route to collect them.

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Find out how robotics and automation can help you get ahead

There are a few different ways robotics and automation can help you get ahead, either this year or in future years:

Take **Storth Limited** for example, who implemented automation to boost the resilience of their product
line: "Our adoption of a robot welder, through support from Made Smarter, has been a success from day one. We were experiencing bottlenecks within our welding process, which was causing delays in schedules.

The robot has helped us overcome the delays and has also helped us to continue operations at a time when some of our welders have been self-isolating, which has caused staff shortages."

"In order to keep up with supply, we are now keen to upgrade our cutting equipment to enable us to operate unsupervised automatic cutting and feeding during the night." – Julian Lopez, Export Manager at Storth Limited Off-the-shelf products for automating packaging in select industries (for instance, brewing or food packaging) can be relatively small too.

And, although costs can vary, it's possible to get something within the £20k-£50k price range with a lead time of three months. This is typically a one-off cost that will see you reaping the rewards in 2023, and many years beyond.

A Manchester-based maker, Seven Bro7hers Brewery, has recently had a grant approved to help them automate their packaging line.

On top of the benefits already discussed, the technology will also give them a significant amount of data on production line performance, which will support their decision-making. Automation is particularly valuable in relation to perishable products.

The technology is able to pack baked goods or confectionery by picking them up with vacuum grips and then depositing them in either a box or package. This can boost capacity, productivity and quality.

More broadly speaking, collaborative robots (or 'cobots' for short) can be used to place boxes on pallets. They're incredibly quick and easy to set up too due to the fact that they don't involve complex programming or safety systems. This is because the motors aren't powerful enough to cause damage to people, and have the ability to detect when something is in the way.

But their uses extend far beyond this too. Cobots can
be easily wheeled around the factory floor, meaning that they could assemble a product in the morning and then be packaging it somewhere else in the afternoon. In this way, they act like an additional pair of hands.

New digital technologies can give you the edge to win more contracts

Traceability

Traceability is the ability to track every single part of the manufacturing process – from sourcing the raw materials to delivering the final product. Having a traceability system in place means you'll know exactly what's happening within your operations, allowing for root cause analysis. Any defects can be reviewed:
were quality checks not followed thoroughly? Was the right training not in place? Does the issue relate to a specific supplier? You can pinpoint problems or bottlenecks, which can then be resolved to mitigate the impact.

Sustainability

Waste reduction is one very basic method for boosting your sustainability. After all, if you address waste, you can make carbon savings through the reduction in materials – not to mention boost your profitability. It's a good idea to focus on those products or processes that make the most noteworthy impact (damaged or scrapped product by weight or value, for example). Some manufacturing businesses opt to appoint a waste prevention team or take a waste audit to ensure this is actioned effectively.

An efficient inventory management system can also go a long way, as it will ensure you minimise the amount of excess raw materials in stock. You can reduce volume by separating hazardous from non-hazardous waste.

From recycling, to reduced transport emissions, being more sustainable will showcase your manufacturing business as responsible and forward-thinking, potentially leading to more contract wins and an improved bottom line.

Increased capacity

Looking to increase production? Boost profits? Introduce new product lines? Digital tools are a must. Find out about the manufacturer we supported with advice and grant funding: With 200 product lines blended, packaged and distributed from its plant, and with an expanding customer base, Organica knew it was time to change the way it did things.

Following a Made Smarter workshop, the integration of sensors has enabled Organica to achieve better yields and machine uptime, reduce unnecessary
maintenance stops and increase production output.

Data analytics means that the management team can explore trends to find further efficiencies. Organica forecasts that the new ERP system will increase stock management by at least 30% and product yield by 20%. Oversight and control will increase efficiency, reduce rework of the product by 15%, reduce waste by 20%, and reduce energy consumption by 10% per ton of product.

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Decarbonisation is manufacturing biggest challenge and a significant opportunity

Manufacturing businesses acting against global warming have reported a reduction in energy costs and improved employee engagement.

Plus, green credentials might elevate your profile both locally and nationally.

From a numbers perspective:

- 34% of businesses stated that they slashed costs with improved productivity
- 16% increased sales with access to new markets where customers expect a level of care for the environment
- 14% said that reducing emissions has enabled them to secure finance for new projects
- 15% have successfully attracted new talent by making their sustainability values known

Moreover, 96% of manufacturers prioritise sustainability in their business model12 – with decarbonisation measures already in place or plan to apply a more eco-friendly approach to their supply chain. Nonetheless, more than a third of business owners say they need help to calculate the carbon footprint of their businesses.

Making the change

At Made Smarter, we're simplifying the process to help you take action – specifically by using digital technologies and outside support available to your business. Our mission is to inspire the new industrial revolution, turning the UK into a world leader in digital tools.

This guide aims to show how these tools can not only support your decarbonisation efforts, but also strengthen your competitive edge and make an everyday difference to your business.

Commit to the cause

Publicly communicating your decarbonisation efforts will convey your climate-conscious goals to consumers – and, hopefully, encourage other businesses to follow suit. SME Climate Hub is a non-profit organisation empowering small to medium-sized businesses to tackle global emissions. They equip organisations with a database of tools and resources to help develop a sound climate action strategy.

Recognised by the Race to Zero campaign, SME Climate Hub asks SMEs to commit to halving emissions

Calculate your carbon footprint

Whether you have five employees or 250, the first fundamental step to any net zero strategy is understanding your footprint. This means measuring your Scope 1, 2 and 3 emissions to identify where you're producing the most emissions. This way you can set the benchmark for all future actions and begin to implement an effective decarbonisation plan. One of SME Climate Hub's tools is the handy Business Carbon Calculator which helps to look at your emissions output through the lens of the GHGP framework.

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Made Smarter in 2024: Looking to the future

There are so many reasons why you shouldn't defer your digital investment – a key one being that, if you fund it now, you'll save money in the long run. Plus, the advantage of starting small is that you can keep any concerns related to wasted investment at bay. You'll be able to bite the bullet, and actually make your digital journey a priority across your entire business.

What's more, you can benefit from the current support measures on offer to enable you to invest into digital tools. The government's keen focus on innovation, growth and recovery may not last forever, so take advantage whilst you can.

Both robotics and data could be key to meeting demand next year. But first, you need to put a strategy in place. Leave your planning until the last minute, and you may face a high volume of work combined with a lack of time, and potentially even capacity issues. Christmas really is the perfect time to get ahead, take stock and seek support. That's why many of the manufacturers we help often start with a digital transformation workshop. It will give you the impartial and tailored advice you need to create a strategy for your digitalisation. You'll be able to identify which technologies can address your specific challenges or achieve your desired goals, along with the actions to take along the way to ensure your digital transformation is a success.

Use your capacity now to get in touch, and start 2024 with support and guidance.

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with a member of our team today

If you're interested in hearing more about the solutions discussed in this guide, or any of the support that we offer, visit our website or send us a quick email.

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