A manufacturer's guide to work smarter: Do more with what you have

How to get more from your resources, time and people

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Today's challenging economic climate means one thing: capitalising on existing resources is more critical than ever. By taking steps to improve efficiency and maximise productivity, UK manufacturers can reduce wasted products, wasted ingredients, and wasted time – in turn helping to combat rising costs.

Often, the best way to improve efficiency is to implement digital tools. Keep reading to learn more about the government initiatives in place to support makers through this turbulent time, as well as how to make the most of your resources, enhance processes with digital technologies, and foster a motivated workplace culture.

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How manufacturers can protect against external factors

For makers, one of the biggest drains on finances is unplanned downtime. **This can cost up to £24,000 an hour,** although analyst firm **Aberdeen Research found that 80% of companies are unable to calculate the exact figure for their particular business.** Of course, it isn't just about the time lost when work needs to be redone – it's also about the materials lost in the process and the cost of running any equipment required to repeat that process.

These shutdowns can have a negative effect on workplace culture, with technical issues frustrating employees and leading to feelings of demotivation. Plus, where unplanned downtime leads to extra work to make up for losses, employees may feel overworked, which can impact morale.

So, how can manufacturers refine their processes to ensure the most efficient operations? The answer lies in implementing digital tools and drawing on the support of industrial digital technology (IDT) experts, allowing makers to track and identify problems before they occur. We discuss how these two factors can help you get the most from your resources, time and people below.

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Resources

According to supply chain specialist Balloon One, the UK manufacturing and processing industry is responsible for the largest amount of food waste **– producing around 1.9 million tonnes annually.** As well as being detrimental to the environment, this is also bad for business – resulting in a significant loss of profit each year.

Reducing this figure begins with examining quality control. When food doesn't meet a certain standard of quality, it needs to be disposed of – ultimately leading to a greater level of waste. Though human error is inevitable in every sector, polishing up your processes helps to keep waste to a minimum.

Streamline their production line and ultimately reduce wastage by

3%

Data and systems integration

Collecting, analysing and utilising data (such as information on stock, capacity or productivity) can enhance visibility over your operations. This can then connect to key systems (such as production software or a customer relationship management platform), to inform decision-making, remove bottlenecks and minimise errors.

When British grower Flavourfresh Salads was experiencing inaccuracies in their paper-based systems, they needed to rethink their processes in order to protect their yield. With the help of Made Smarter, their team managed to digitalise and integrate their production processes **– allowing them to streamline their production line and ultimately reduce wastage by 3%.**

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Sensors

Another huge problem for manufacturers is electrical waste. In fact, it's estimated that, globally, we generate around **50 million tonnes of e-waste every year.** Just like cutting down on food waste is positive for the environment, minimising e-waste conserves the resources of both businesses and the planet.

More often than not, electronic equipment doesn't need to be wasted. Quality machinery is designed for long-term use, so you should always strive to repair and reuse equipment where possible. Increasingly, manufacturers are turning to digital tools to enable them to continue using their existing equipment while reaping the benefits of emerging technologies. An example of this is the chocolatier Ye Olde Friars, who uses sensors to track the temperature of their product **– an investment which has increased their output by 733%**.

Increased output by
733%

ERP platforms

Enterprise resource planning (ERP) software is an invaluable productivity tool for SME manufacturers. An ERP is a single, integrated platform that can be tailored to fit the requirements of your business – saving on costs, boosting productivity, and improving customer relationships.

One such example of this is the fully integrated ERP system that we helped advise cheese and dairy product supplier Bridge Cheese on. Once in place, it is hoped that the system will support them with order tracking, stock takes, and instant quality control reports, as well as reducing the need to manually check machines for errors. Their efficiency and productivity are expected to skyrocket as a result.

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Lean thinking

Eliminating wasteful activity within your business is a branch of lean thinking, which outlines overproduction and over-processing as two key areas of waste management.

It's important to bear in mind that exceeding customer demand leads to added costs, as anything a client is unwilling to pay for is essentially waste. Similarly, adding unnecessary features to a product increases its price tag, potentially turning it into something that clients are again not willing to pay for. **Taking the time to measure productivity for profit ensures you'll make the most of your resources.**

Recover, recycle, and resell

A lot of the time, waste materials in manufacturing can be reused directly within the business. That's why it's important to recover as much waste as you can – this can be done using various techniques including electrolysis, filtration, reverse osmosis, and centrifugation.

Recycling materials by turning them into a new substance or product also helps to minimise waste. Or, if you no longer have a use for a particular item, consider selling it to another manufacturer who will.

Ultimately, the goal is to change the hierarchy of waste.

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Time

Earlier, we discussed unplanned downtime as one of the biggest losses for manufacturers. However, the issue isn't always due to unexpected events – planned stops can also interfere with production times.

Examples of planned stops include safety checks before a machine is able to run, tooling adjustments or repair, cleaning, or even employee breaks. Even though this downtime is categorised as 'planned', it still counts towards production losses as it's something that can be improved upon.

With the help of IDT experts, you can use digital tools to improve the efficiency of your factory floor and reduce the duration of planned stops. This will, in turn, boost your reaction and order fulfilment time **– allowing you to meet the needs of your customers quickly, and retain and attract new customers in the long term.**

Digital Twin technology

Made Smarter helped an aerospace manufacturer design a new, state-of-the-art factory to support their growth. The redesign involved employing cutting-edge Digital Twin technology to build a virtual reality simulation of the factory layout – giving them the opportunity to create the most efficient set-up that would effectively maximise production.

The ability to make strategic plans like this before investing in equipment or infrastructure can save both valuable time and money.

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Unifying data

Another way SME manufacturers can maximise productivity and support growth is by putting data at the heart of their digitalisation journey – a step taken by almost 75% of SME manufacturers supported by Made Smarter. An example of this in action is a plastic card manufacturer who implemented a bespoke solution that can read a card, check it against a data file in real time, and then encode it. Software then interrogates the manufacturer's customer database for the personalised data for the card, and then organises print jobs for the day. The result is an 8% increase in turnover.

Play equipment manufacturer Playdale has drawn on analysis from its real-time performance and predictive maintenance data to understand the savings from improved efficiencies as well as reduced downtime, tooling spend and maintenance costs. They're then going to replicate this across their other legacy equipment.

8%
increase in turnover

A step taken by almost
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Motivating
employees to participate in the process.

People

Of course, your business is primarily made up of people. It stands to reason, then, that one of the best ways to reduce waste throughout your organisation is to encourage a waste management culture. This could involve something as simple as setting targets, and making these visible throughout the day – this not only offers direction, but it also motivates employees to participate in the process.

Another small but effective method is reminding staff to turn off machinery and lights when it's safe to do so. Initially, you might want to create signs to place near switches, but eventually it will become second nature.

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Robotics and automation

We've already established that motivated employees are much more productive. So, take care to eliminate repetitive tasks from their workday and automate these instead – this serves to streamline processes while also giving staff the opportunity to channel their energy elsewhere in the business.

If they're not spent on higher value work, these periods of idle time can also be used as training opportunities – empowering employees and reducing skills gaps at the same time.

Rate of jobs performed on time from 50% to

80%

Digital transformation workshops

At Made Smarter, we conduct digital transformation workshops to help businesses encourage innovation and equip their staff with the tools and expertise they need to engage in the digital revolution.

So far, these workshops have proved to be extremely successful. An engineering firm who was eager to demonstrate to staff the positive effects of digital transformation benefitted hugely from two half-day workshops with our experts. By challenging traditional methods and attitudes, and showcasing digital alternatives, we managed to help this maker **increase the rate of jobs performed on time from 50% to 80%.**

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Reshape the future of waste today

Going far beyond waste management, the benefits of enhancing your traditional systems with digital technologies are truly invaluable – allowing you to automate processes, refine products, and ensure each and every one of your resources is accounted for. Though the task may seem daunting, the experts at Made Smarter can help simplify the process – fast-tracking you to achieving your business goals through many different types of support. These include:

Funding

Finance for technology investment is on offer for both small - and medium-sized makers. Made Smarter technology funding is available to SME Manufacturers based in one of the nine English regions - North West, North East, Yorkshire & Humber, East Midlands, West Midlands, South West, South East, East of England and London.

Digital Transformation Workshop

Our digital transformation workshops can help you figure out the steps to move forward on your digital journey, including when it's best to introduce certain tools into your business.

Bespoke Advice

We can also provide you with tailored and impartial advice. Our specialist advisers will help you establish your biggest challenges, and the role of technologies in resolving them.

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Touch
**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.

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