How traceability technologies can fuel a competitive advantage

Root cause analysis & value chain mapping

Continuous quality improvement

Waste reduction & enhanced efficiency

The drawbacks of manual traceability

The use of blockchain technology

Traceability is the ability to track every single part of the manufacturing process – from sourcing the raw materials to delivering the final product. In the event that something goes wrong, or your process is put into question, it enables you to find the cause of the problem and hold someone to account.

Being unsure of the complete history of your product can drastically damage your corporate reputation. Examples from the world of fast fashion and food and drink, as well as product recalls, show just how important it is.

However, when you have traceability in place and it's used in the right way, it can be a powerful marketing device that also helps protect your brand. Yet the benefits of a robust traceability system go much further than that…

Benefits to the forward-thinking manufacturer

Alongside a boosted brand and marketing function, traceability is particularly advantageous to those in sectors where there are strict legal requirements – like the food supply chain. But where the use of up-to-date data really comes into its own is in its ability to enable you to satisfy customer demand and be more proactive. This visibility results in a clear competitive advantage.

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.

Value chain mapping can additionally be done. After all, everyone involved in bringing your goods to market needs to guarantee quality, meaning that you need supply chain traceability too. You'll then be intimately aware of every single activity that goes into the creation of your product or service. Your processes can be integrated with theirs, and communications between each party made clear.

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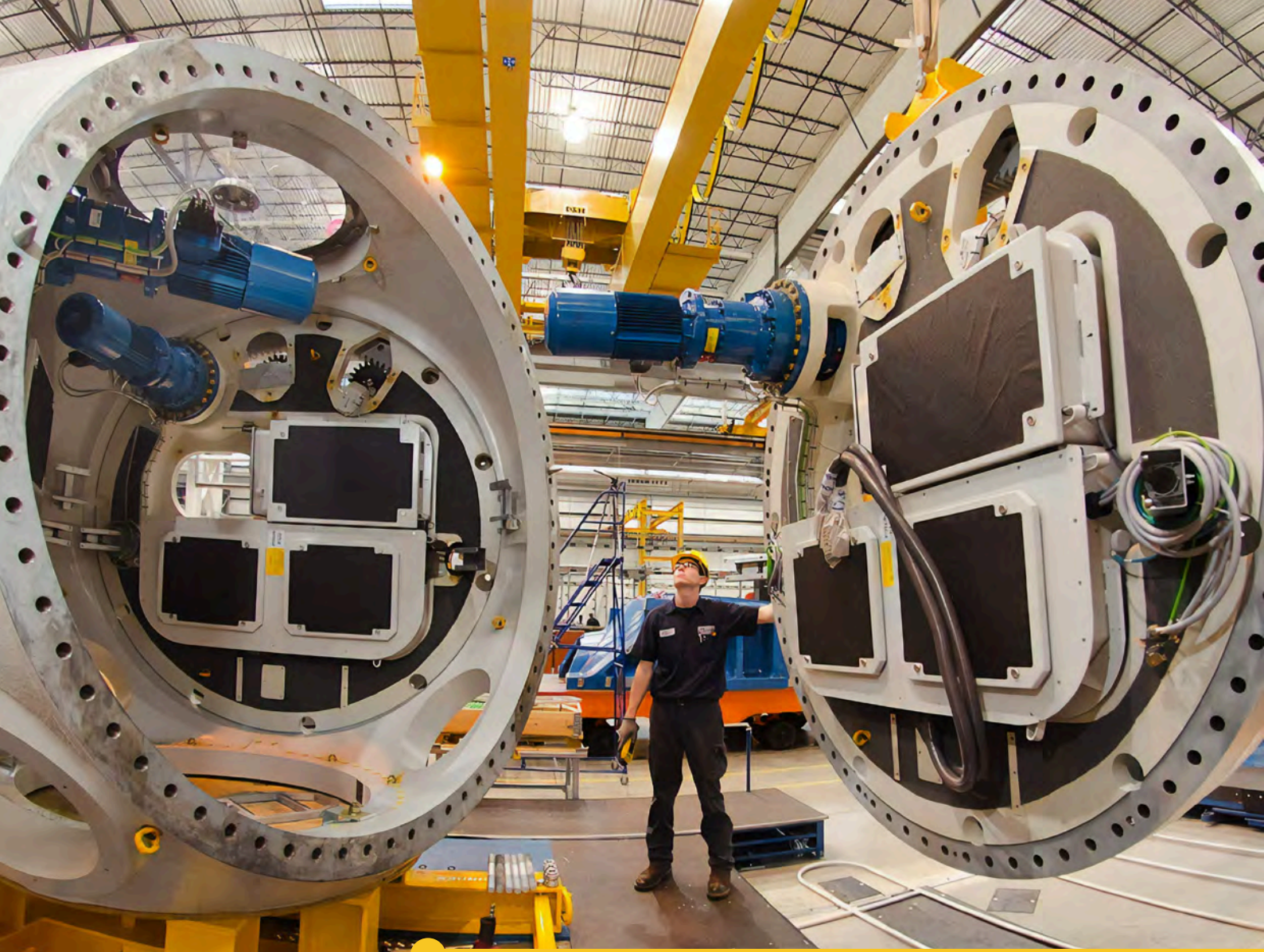
Traceability also enhances quality. You can identify if additional quality checks are required. Plus, you can work towards continuous improvement – through data analysis, you can spot such opportunities and optimise your processes for increased efficiency.

On top of this, traceability reduces waste and enables green manufacturing. Buyer decisions are increasingly influenced by a business' carbon footprint, and it is crucial that we all help the UK reach its 'net zero' goal. If you need just one reason to consider a robust traceability system other than customer trust, this is it – trust us.

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Implementing traceability in your business

Clearly, the ability to trace data adds a tremendous amount of value, but it's not a value-added task itself. It can be extremely time-consuming and error-prone as staff input information into spreadsheets – or worse, onto paper.

Plus, it relies on your team having specific skills or knowledge. Then what happens if they're absent? Add to this the time it takes to trawl through records, illegible handwriting, or deteriorating and disorganised files… the amount of resources it can take sure builds up – and sometimes you can't even take the information at face value.

It can potentially be months before you manage to source what you need. When a customer has a problem or the media highlights a supply chain issue, you'll find that they don't have this level of patience. They want to know what went wrong, why, and how you're going to make sure it doesn't happen again. If you can't do that instantly, you don't have a hope of regaining their trust.

Therefore, when done in this more manual way, the traceability process actually *loses* value – it's so onerous that you can't improve efficiency or the customer experience.

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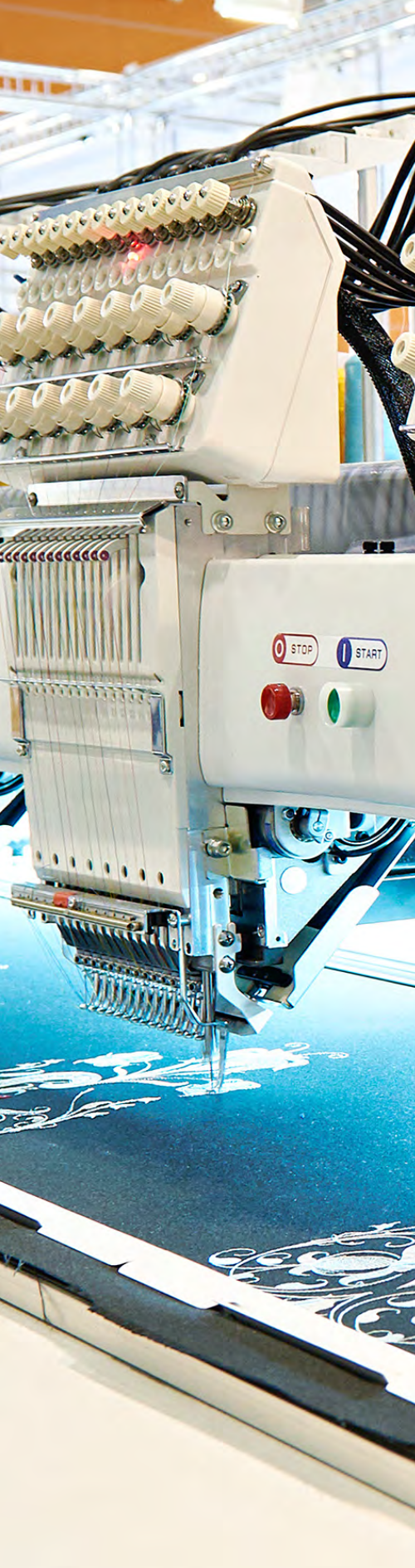
Get started with traceability technologies

Traditional systems simply aren't up to scratch if you want the Holy Grail: accurate information that's immediately available. And that's where digital technologies come in.

Instead of losing your talented staff to the arduous task of traceability, you could implement digital tools – and move those team members over to other areas where they could be upskilled instead. The technologies provide a value chain for this audit trail, and the records are significantly more accurate, legible and accessible.

Such technologies include blockchain. You'll no doubt have heard of this record-keeping tool, but a quick Google search will probably leave you with more questions than answers – so here's a simple explanation.

A blockchain is exactly what it says on the tin: it's a chain (database) of blocks (digital information). They're immutable – so can't be changed without changing all the other preceding blocks – and the chain cannot proceed unless the input is correct, providing the utmost accountability and accuracy.

Rather than a number of parties in your supply chain sharing data and documents through a centralised database (or ledger), each party can access all data from a distributed ledger. The database assigns a unique identifier to each product and can automatically record its origin and every activity it has been subjected to – including alterations, purchases and quality checks – on the blockchain. When an issue arises, it's much easier to pinpoint the source. Deloitte has a great resource on using blockchain to drive supply chain innovation if you'd like to learn more.

The use of digital technologies allows for much more ethical manufacturing. You can show customers where the product comes from, which is an increasing concern. People want more information about their purchases these days, and you have to make sure that you effectively track data and fix anything that could cast you in a bad light. Get ahead of the curve now by implementing traceability, and in 5 to 10 years you'll have the ultimate competitive advantage.

Blockchain really is just one technology solution that can support your traceability efforts. If you'd like to know more about traceability tools, and discover how you could provide full supply chain transparency to your clients, please speak to a member of the Made Smarter team. Get in touch today to find out about the support we can provide to your manufacturing business.