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NO WEAK LINKS: BUILDING SUPPLY CHAIN RESILIENCE

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EXECUTIVE SUMMARY

The UK's manufacturing base has enjoyed little respite since it came under siege at the start of the pandemic. Business conditions have evolved since that time, but often not favourably. While the end of the UK's, and other nations', pandemic lockdowns opened markets back up to trade, few predicted that global demand would exceed supply in such fashion as to hamstring the sector's recovery.

With volatile pricing, unknown or unacceptable lead times and geo-political sourcing implications, it is little surprise that UK manufacturers have needed to place their supply chains under the microscope at extraordinarily short intervals. As manufacturers adapt at pace, supply chain uncertainty is growing.

Our research finds that supply chain pressures will continue into the year ahead, with the overwhelming majority of companies reporting such pressures in 2023 and looking ahead to 2024.

Uncertainty in supply chains is driving new behaviours as the pandemic and global trade disruption have taken their toll on confidence. Companies are focusing on building a resilient supply chain that can withstand these disruptions, manage the risk of further instability and continue to function.

There is no one strategy that manufacturers are exploring, and each company will take account of several factors, including complexity of supply chains as well as distance from disruption. The most common trends include the diversification of supply, increasing stocking levels and shortening of supply chains, with a trend towards reshoring and near-shoring. 40% of manufacturers surveyed said that they have increased their supply from the UK. With a similar number saying they will do so in the coming year, the concept of reshoring is fast becoming a reality and the intention is there in the year ahead.

While not fully defined, the concept of "friend-shoring" is gaining international interest as, rather than just focusing on bringing suppliers closer to home, companies focus on growing suppliers in markets that are considered stable, reliable and have shared objectives; in other words, "friendly".

While this is likely to be a growing trend in the future as markets continue to be volatile and manufacturers are incentivised to look at their supply chains in more detail, there is currently limited evidence that this is leading to change today.

Supply chain monitoring is firmly on manufacturers' agendas, with 82% reporting that this is critical to their business. However, there is a lag between citing its importance and using digital technologies that can help enhance supply chain monitoring. While manufacturers are dipping their toes in the water by using data analytics and dashboards, more sophisticated technologies such as Al and machine learning, which could be even more impactful, are yet to be considered overall. There is a real missed opportunity here and it's vital that all stakeholders work together to help businesses understand the benefits.

And it's not just the use of technology that is hampering the industry's ability to truly unlock supply chain transformation. Age-old challenges such as lack of skills dominate, as well as companies' inability to gain timely data.

The energy crisis, access to raw materials, labour shortages, input costs and wider supply chain disruption have created unprecedented times for businesses across the globe. UK manufacturers have prioritised keeping their heads above the water and continue to meet demand when supply side constraints are making this challenging.

PART 1: SUPPLY CHAINS STATE OF PLAY

Growing demand for products, post-pandemic and across the globe, has put increased pressure on existing supply chains. Unsurprisingly, with such a period of pent-up demand right across the globe, the suppliers' lead times, services and product prices have increased significantly

Despite both global and domestic demand having cooled towards the end of 2022, the sector is still saddled with the scars of the demand boom. Perhaps most evidence of this is seen in manufacturer input prices, with average costs of inputs being 17% higher in the year to December 2022 according to ONS figures. Elevated industrial energy prices, largely driven by the secondary market effects of the conflict in Ukraine, continue to erode UK manufacturers' already slim margins, all while volumes continue to decrease.

93% OF MANUFACTURERS AGREE THAT SUPPLY CHAINS WILL REMAIN UNDER PRESSURE IN BOTH 2023 AND 2024

UK manufacturers say just that, with only 3% reporting that they don't expect to experience supply chain pressures in 2023/4. As reliable supply chains are so important to UK manufacturing's prosperity, it follows that 80% of the industry suggests that these supply chain vulnerabilities are a big strategic risk for firms in the coming two years.

80% OF MANUFACTURERS SAY THAT SUPPLY CHAIN VULNERABILITIES ARE A SIGNIFICANT STRATEGIC RISK FOR BOTH 2023 AND 2024

Acquiring, monitoring and capitalising on reliable supply chains will be key to UK firms' ability to navigate the challenging business environment over the next one to two years.

Chart 1: Supply chain pressures set to continue in the year ahead

% companies agreeing to statements



Source: Make UK/Infor, Global Supply Chains Survey (2023)

THE COST OF DOING BUSINESS IS DRIVING SUPPLY CHAIN CHALLENGES

Reflecting the extreme increase over the past year in the cost of doing business, the top three challenges that manufacturers have identified within their supply chain in the past 12 months are all related to costs. The grouping of responses between these top cost challenges is very tight, with the increase in raw material and purchase costs leading the pack as the most prolific challenge, then transportation costs and followed by energy costs. Nevertheless, seven out of ten manufacturers highlighted each of these challenges within their supply chains, revealing how prevalent cost concerns are within businesses' supply chains.

ONLY **1.5%** OF MANUFACTURERS HAVE FACED NO ISSUES WITH THEIR SUPPLY CHAIN IN 2022

Just after the pandemic subsided in the UK and the sector entered its so-called "recovery" period, material costs and transport costs were an immediate challenge. Now, with more than a year having passed as manufacturers enter 2023, these challenges persist but are now joined by another significant cost challenge: energy.

Beyond cost concerns, the most significant supply chain challenge highlighted by manufacturers is on-time supplier performance, with 56% of respondents reporting they have faced challenges with supplier lead times in the past 12 months. Following this is the increase in international trade complexity, 45%, and fluctuations in demand, 41%.

Worryingly, only 1% of manufacturers have reported having no challenges in their supply chain in the past 12 months, revealing how fraught supply chain security for UK manufacturers has been in 2022.

Chart 2: Raw materials, transport and energy costs have presented major supply chain challenges



Source: Make UK/Infor, Global Supply Chains Survey (2023)

THE POST-BREXIT, POST-PANDEMIC SUPPLY CHAIN LANDSCAPE IS BEGINNING TO CHANGE

HOW UK MANUFACTURERS' SUPPLY CHAINS ARE EVOLVING

Manufacturers in the UK are part of the global supply chain; they import materials and components which are processed here, adding value, before being exported to customers around the world. Supply chain resilience and agility are key to business efficiency and competitiveness with a continuum of global supply chain disruptions.

While supplies from the UK continue to dominate, with more than 50% of suppliers based in the home market on average, UK manufacturers also source from our closest markets in Europe. An average of more than one-fifth of suppliers are based in the EU and by adding non-EU countries this increases to a quarter. This means that a good relationship with these markets is vital to the success of manufacturers in the UK. As the UK continues to develop its new relationship with the EU, we are starting to see some concerning trends in confidence in the UK market, with almost half of the manufacturers (48%) agreeing that EU suppliers are cautious about supplying to UK customers. This is also reflected in the changes to the supplier base, with almost 20% of manufacturers reporting that they have reduced the number of suppliers from the EU in the last 12 months. It is vital therefore that the UK builds a constructive relationship with European partners, notably the EU.

Chart 3: UK manufacturing suppliers across the globe



NO WEAK LINKS: BUILDING SUPPLY CHAIN RESILIENCE

IMPROVING THE RELATIONSHIP WITH THE EU

The starting point for improving the relationship with the EU should be the framework of the existing agreement to discuss potential barriers to trade, provide confidence and maximise cooperation. Since the Trade and Cooperation Agreement (TCA) between the UK and the EU was signed, there has been plenty of focus on the trade elements of the UK and EU relationship. However, outside Ukraine and related energy issues, there has been little to none of the cooperation envisaged under the TCA.

While it is always important to reduce tariff barriers, the real challenge faced in the future is the uncertainty of non-tariff barriers – the majority of which are likely to stem from legislative divergence, be that passive or active.

It will be important not to frame the discussion as one that only relies on the UK changing its position. One of the challenges of the last five years is that we have tried to build an alliance in the UK on what is acceptable, balancing many competing views. This has often resulted in boxing off options to reach a compromise that left little room for negotiation with the EU. The UK has always approached the negations with internal red lines up front rather than testing the EU/Commission's position and coming back with options.

It is important to recognise that there is also a need for the EU to budge. Recent discussions on the Northern Ireland Protocol have shown that the EU appears more inclined to find compromises than before, but we must work with European counterparts to highlight our shared objectives for improving the relationship. As a first step, the UK must maximise all negotiation opportunities with the EU to find pragmatic solutions to overcome the challenges of trading between Great Britain and Northern Ireland.

Unfortunately, this concern is not limited to partners in the EU, with a little more than one-third (35%) also agreeing that suppliers from the rest of the world are cautious about supplying UK customers. However, it is welcome that supplier bases in these markets have remained relatively stable in the last 12 months with little change in supplier numbers in markets outside the EU.

The exception to this stability is a slight cooling in suppliers from China and a reduction in supplies from Russia. It is understandable that manufacturers are cautious of supply chains in Russia considering the invasion of Ukraine early in 2022 and the increased sanctions imposed on trading with Russia. However, it will be interesting to see in future if the slight cooling of confidence in the Chinese market is a growing trend; current evidence suggests it is limited.

VOLATILITY IS HERE TO STAY

As Make UK highlighted last year, despite the pandemic and the UK fundamentally changing its relationships with trading partners' markets, volatility has become the norm as a series of geo-political events and supply chain disruptions increase and follow back to back. This is leading manufacturers to rethink their supply chains and develop new processes to manage the ongoing volatility. There are several trends we are seeing in supply chain management as manufacturers move away from a just-intime model to a just-in-case mentality.



Chart 4: Supply chain strategies to mitigate supply chain disruption

Source: Make UK/Infor, Global Supply Chains Survey (2023)

DIVERSIFICATION AND CONSOLIDATION

Fluctuations in supply chains are a constant as manufacturers respond to both internal as well as external factors and disruptions.

In the last 12 months:

- More than half of the manufacturers have changed supplier numbers
- Almost one-third have increased the number of suppliers
- Two in five have reduced the number of suppliers

This points to multiple changes in supply chain management but supports two primary trends in the diversification of supply and consolidation.

As with the reshoring of supply, manufacturers are looking at diversification to increase resilience in their supply chains. An increased number of suppliers can help a business to reduce the risk of supply disruptions by spreading the risk over a greater supply base, ensuring a continued flow of critical materials and components. While this has the potential to increase costs, greater supply chain resilience shields manufacturers from contract failures. We have seen evidence of this across several sectors, but most acutely in sectors exposed to the supply of semiconductor chips, which has caused significant delays in the production of final goods.

Our findings support evidence that manufacturers are looking at diversifying suppliers and increasing their supply base. Our report says 60% of large companies have implemented diversification of their supply chain, while 43% of SMEs have done that.

Size of manufacturer Diversification of suppliers

	Explored	Implemented	No change
0-9	0%	67%	33%
10-249	38%	43%	19%
250-499	32%	47%	21%
500-999	50%	50%	0%
1,000-3,000	67%	27%	7%
3,000+	0%	60%	40%

As well as diversification, we are seeing consolidation in some supply chains, as manufacturers reduce the number of suppliers and focus on a smaller number of partners. While a different approach, consolidation can shield companies from supply chain disruptions by locking in supply with manufacturers contracting for long-term supply. This can be particularly important where increased competition for critical, and often scarce, materials can lead to the risk of potential shortages.

Size of

manufacturer	Diversification of suppliers			
	Explored	Implemented	No change	
0-9	0%	0%	100%	
10-249	19%	40%	41%	
250-499	21%	47%	32%	
500-999	33%	50%	17%	
1,000-3,000	73%	27%	0%	
3,000+	0%	40%	60%	

The consolidation by some manufacturers could also point to increased supply chain collaboration. From strategic partnerships to shared supply and joint ventures, supply chain collaboration is a growing trend and is becoming increasingly important as companies look to increase resilience in their supply chains. These collaborative partnerships can lead to great supply certainty and cost efficiencies as well as innovation.

INCREASED SUPPLY CHAIN MONITORING

In addition to diversification, the second highest strategy for coping with supply chain volatility is increased supply chain motoring, with two-thirds of manufacturers either implementing or exploring such strategies. It's hard if not impossible to be able to stop volatility, but the faster you can detect changes in demand or supply the better the outcome of your response. Looking at the size of the companies, only 15% of SMEs have explored supply chain monitoring and almost 40% have done nothing about it.

manufacturer	Diversification of suppliers			
	Explored	Implemented	No change	
0-9	0%	0%	100%	
10-249	15%	48%	38%	
250-499	26%	31%	42%	
500-999	0%	100%	0%	
1,000-3,000	40%	53%	7%	
3,000+	40%	40%	20%	

We talk further about the importance of supply chain visibility later in the report.



Chart 5: Main drivers of bringing the supplier base back home

Source: Make UK/Infor, Global Supply Chains Survey (2023)

RESHORING AND NEAR-SHORING

In addition to diversification and collaboration, as a result challenges such as the pandemic and global trade disruption, manufacturers are increasingly looking at reshoring and near-shoring to mitigate supply chain disruption and increase resilience.

Supply chain reshoring is the practice of bringing production and supply of critical materials, which were being sourced from another country or region, back to the country where a manufacturer is based. While nearshoring is a relatively less significant move than bringing supply chains back to the home market, manufacturers are looking at bringing supplies to markets closer to home in cases where the home market may not be an option.

There are a variety of reasons that businesses may look at reshoring their supply chain, from improving efficiency to reducing costs. However, the key driver for manufacturers is to mitigate the risk of supply interruptions and avoid disruptions to business operations. In addition, businesses that outsource production to countries far from home are increasingly finding that the cost of transport and long lead times make it difficult to respond quickly to changes in demand. While additional benefits of reshoring, including responding to the Covid-19 pandemic (8%) and environmental reasons (6%) are limited, the reasons for supporting reshoring are aligned with the top three priorities in selecting suppliers overall, with a focus on quality, availability and cost.

Make UK research published late last year revealed that more than half (52%) of manufacturers had been subject to a cyber security attack, largely driven by the sector's lucrative intellectual property, yet it is not a significant driver for manufacturers considering reshoring.

We continue to see this trend in the UK, with 40% of manufacturers surveyed saying that they have increased their supply from the UK and a similar number saying they will do so in the coming year.

The same trend is seen in near-shoring, as almost 20% of companies report increasing suppliers in the EU and a further 9% in non-EU countries. This trend is foreseen to continue through the next 12 months, with almost a quarter (24%) reporting plans to increase suppliers in the EU and one in ten (10%) for expansion plans in non-EU countries in Europe.

WHAT ABOUT FRIEND-SHORING?

"Friend-shoring" is a concept that is gaining international interest as more businesses review where to locate their production and could be considered a narrower version of near-shoring. The idea suggests supplier choices are based on similarities shared between countries. In other words, rather than just focusing on bringing suppliers closer to home, companies explore growing suppliers in markets that are considered stable, reliable and have shared objectives; or what they might deem to be "friendly".

Friend-shoring is increasingly seen as a cooperative mitigation among close trading partners, such as the UK, the EU and the USA and Canada, as they look at collaboration to reduce the exposure of domestic manufacturing to global volatility and increase supply chain resilience. However, there is certainly a trend towards supporting greater domestic supply with the US Inflation Reduction Act and similar plans in the EU which are running counter to this concept. That said, there is increasing pressure on manufacturers to look at their supply chains and the impact on a wide range of issues, from due diligence to forced labour, meaning that while working with trading partners may not be incentivised, companies could be forced to pull away from more "risky" markets towards markets that share objectives and meet common or similar standards.

"Friend-shoring" is likely to continue growing as an idea for businesses as market disruption becomes more frequent and manufacturers are incentivised to de-risk their supply chains. However, currently there is limited evidence that suggests this is taking place today.



PART 2: A CHAIN IS ONLY AS STRONG AS ITS WEAKEST LINK: SUPPLY CHAIN STRATEGIES

IS MONITORING THE KEY TO MAINTAINING AN EFFECTIVE SUPPLY CHAIN?

Following the pandemic, it has often been reported that it was a lack of visibility of a manufacturer's supply chain that caused critical production stoppage. With perhaps little contingency option built into businesses' supply chain strategies, their exposure to stoppages, even higher up a supply chain, could be dependent on a singular company's failure to deliver.

82%

OF MANUFACTURERS REPORT THAT THE MONITORING OF THEIR SUPPLY CHAIN IS CRITICAL TO THEIR BUSINESS

This has bred a new awareness within the manufacturing sector in the UK, that sight of your supply chain beyond your immediate trading partners could be critical in mitigating the future risk of supply failure. This awareness is reflected in the survey, with a little more than eight in ten manufacturers reporting that the monitoring of their supply chain is vital to the success of their business.

Supply chain monitoring is observed in similar proportions both up and down the chain. The most common depth of monitoring is limited to a level 1 supplier, i.e., a business that a given firm will interact directly with either as a customer or as a supplier. This is often colloquially referred to as the "one up one down" approach, with the data suggesting this is the most prolific strategy in UK supply chain monitoring.

26% AND **24%** OF BUSINESSES UNDERTAKE NO MONITORING OF THEIR SUPPLY CHAIN AT ALL, BOTH UP AND DOWN THE SUPPLY CHAIN, RESPECTIVELY



Chart 6: While monitoring is deemed important, it's somewhat limited

Source: Make UK/Infor, Global Supply Chains Survey (2023)

In both the downstream and upstream monitoring categories, the majority of UK manufacturers are captured in both level 1 and level 2 depth of monitoring, with 63% of manufacturers falling within this category for upstream monitoring, and 64% for downstream monitoring.

Only a small proportion of the industry monitors their supply chain beyond the 2nd tier. In the case of downstream monitoring, 18% of manufacturers say they monitor up to level 3, 8% up to level 4 and only 5% beyond level 4.

STRATEGIES TO MITIGATE SUPPLY CHAIN PRESSURES

Supply chains are notoriously challenging to monitor, even for the largest manufacturers. Despite this, events of the last few years have identified supply chain resilience as mission-critical to the viability of a business. Many manufacturers view implementing appropriate strategies as imperative to this cause and businesses have shown they are applying, or are exploring, different options to fortify those crucial links.

In terms of action, the largest share of manufacturers (47%) have implemented increased supply chain monitoring as part of their strategy. To what extent is not clear, but historically most businesses have monitored supply chains up to 1 level (direct supplier and customer rather than the supplier's supplier or vice versa). A further 19% of companies are also exploring how they can increase supply chain monitoring.

However, among those that have implemented and/or are exploring options, diversification of suppliers is found to be the most common strategy considered; this was the result for 81.6% of manufacturers. Most commonly, this includes seeking out alternative suppliers to ensure there are backup options available in the event of a supply chain disruption. Diversification can also cover dual sourcing whereby a manufacturer can source their total input needs from at least two suppliers to increase supply security and reduce risk.

In contrast, strategies that involve the use of new technologies have proved relatively less popular among manufacturers. 62% of businesses have made no change in their strategy in the investment of supply chain technology, while the remainder have either implemented or are exploring these solutions. Supply chain technologies such as monitoring software or tracking technologies (e.g., blockchain) show great potential in supporting businesses to build supply chain resilience. However, adoption of such technologies is yet to lift off for the majority, which can be down to several reasons, such as cost, lack of awareness of available solutions, knowledge and expertise to implement or devaluing its benefits in preference to low-cost solutions.

INVESTING IN SUPPLY CHAIN RESILIENCE

Investment is a key step towards building supply chain resilience in a business. Last year, 45% of manufacturers indicated they were planning a basic level of investment in building supply chain resilience capability, while approximately one in ten planned an intermediate or advanced level of investment in adopting solutions to expand capability.

The latest survey results that highlight intentions for 2023 find that there has been a marked improvement in manufacturers planning to increase basic level investment in building supply chain capability, which has increased to 62% of manufacturers. However, the share of companies planning intermediate level investment has fallen from 11% to 2%, while the share of those planning advanced level investment has fallen from 11% to 4%.

This is a strong indication that the industry is moving forward in the right direction, in respect to being more willing to invest in building supply chain capacity. However, the change in intermediate and advanced indicates that manufacturers are not willing to take significant leaps forward in their investment, which raises concerns that businesses may be underinvesting or deprioritising investment in supply chain resilience.

The cause of this reprioritisation may be a consequence of recent crises that have been influencing short-term decision-making. For example, the energy crisis is currently at the front and centre of the minds of most manufacturers, with 70% of businesses' energy prices to increase in 2023. As a result, a growing share of manufacturers are likely prioritising investments in energy efficiency, with more than 40% already investing in selfgenerating assets.¹ Alternatively, rising inflation and other costs may be contributing to limited liquidity available for major investment projects, hence the increase in businesses that are opting for a cheaper basic level of investment.

On balance, the overall improvement in more businesses investing in supply chain resilience is a step in the right direction, but existing challenges may be slowing down progress.

¹Make UK/PwC, Executive Survey 2023

Chart 7: Basic level investment in the supply chain is planned for the year ahead



Source: Make UK/Infor, Global Supply Chains Survey (2023)

PART 3: SUPPLY CHAIN TECHNOLOGIES

As cited previously, eight in ten manufacturers agree that monitoring their supply chain adds to the success of their business. Digital technologies such as Artificial Intelligence (AI) and machine learning can assist with building a truly resilient supply chain.

Challenges remain. More than one in five (22%) manufacturers say the lack of timely data on changes in demand of supply can hinder supply chain transformation. Therefore, it is vital that manufacturers understand how to:

- Gather data
- Use data
- Share their data with their supply chain upstream and downstream

Dashboards and analytics dominate as the most popular digital tool as key to supply chain monitoring success. Disruption to global supply chains have forced manufacturers to rethink their strategies, and in some cases completely turn them on their heads. They have taken a fresh approach to the relationship they have with their supplier base and are increasingly looking to diversify their supply chain and understand exactly who is in it. To do that efficiently and effectively, they are using technology.

2 IN **5** MANUFACTURERS STILL DO NOT USE TECHNOLOGY TO MONITOR THEIR SUPPLY CHAIN

Almost half (46%) of manufacturers are using dashboards and analytics to manage and monitor their supply base. This has topped the charts for two consecutive years running, demonstrating manufacturers' reliance on these technologies. This year, we see a small movement towards real-time sense and response platforms, accelerated adoption of sensors and capturing data and even use of supply chain towers. As supply chain strategies are becoming more resilient, and previous investments made in supply chain resilience are materialising, manufacturers are now looking at a suite of digital technologies.

TECHNOLOGIES BEING USED



Make UK, in partnership with Infor report – Digital Adoption Monitor 2022 – revealed that 40% of manufacturers introduced or are introducing digital technologies to manage their supply chain. Another 40% are considering investing in digital tools to manage their supply chains. However, 20% of manufacturers still are not planning on doing so.

To build a resilient supply chain, we need the transparency and agility that digital technologies can bring. What these technologies are is still unknown to many manufacturers and we are still not seeing enough awareness that digital technologies can provide solutions for companies to become more agile and more responsive in regard to supply chain strategies.

DATA AND ANALYTICS KEY TO BUILDING RESILIENCE

While uptake may be slower than we hoped, manufacturers strongly agree that greater visibility, better analytics and greater digital connectivity can help build more resilient supply chains. And given the supply chain disruptions manufacturers have faced over the past 24 months, it is critical we transition from being aware of the benefits to reaping the benefits, and from being aware of the technologies to using the technologies. The opportunity areas appear to be around visibility, data and analytics. Half of the manufacturers said that greater visibility across the supply chain would benefit their business. This enables manufacturers to share data in real time with their clients and suppliers, to identify bottlenecks and risks and to put mitigating plans in place.

Eight in ten think cloud computing has a positive impact on productivity and efficiency, increasing the number of companies investing in this digital tool. Cloud computing provides a platform for connecting across the supply chain securely. Manufacturers can have confidence when connecting digitally with all parties. It is for this reason that 40% of companies believe this improves supply chain resilience.²

Moreover, better analytics of data that is being gathered by manufacturers is crucial for efficiency within supply chain management. Efficiency measures are cost savings. Cost savings are needed during a cost business crisis. But manufacturers don't need just any data; they need goodquality data and affordable software that can analyse it in real time.

OVERCOMING CHALLENGES TO CREATE SUPPLY CHAIN OPPORTUNITIES

Digital technologies can make supply chain monitoring simpler by building agility and increasing visibility. This in in turn can make supply chains more resilient, however, one in ten manufacturers believe that a lack of digital technologies are an inhibitor to building resilient supply chains. This reveals that adopting new digital supply chain processes can be complex, and manufacturers need the right skills and people to map out what a company needs to start building its solid supply base.

The biggest inhibitor to transforming a resilient supply chain is the lack of skills and training, cited by 28% of respondents. The UK is currently experiencing both a live labour shortage and a long-standing skills crisis. Supply chain issues are a relatively new area, only recently becoming high in demand for expertise following the pandemic and supply chain disruptions.

Another factor that hinders companies in the building of resilient supply chains is the lack of timely data, cited by one in five (22%) manufacturers. There are two aspects to

it. One, many companies do not use digital technologies in supply chain management (40%) which could capture any data efficiently. And two, some companies capture that data through digital tools; they are not connecting through different processes – e.g. production with logistics – and are not connecting across the supply chain.

Some manufacturers are still using outdated processes that result in poorer quality and are less reliable. With data input still happening manually in some instances, often by different people, this can lead to errors. As a result, this is also holding manufacturers back from supply chain transformation.

13% OF MANUFACTURERS SEE NO BARRIERS TO SUPPLY CHAIN TRANSFORMATION

PART 4: UNLOCKING SUPPLY CHAIN TRANSFORMATION

ONLY **1** IN **3** MANUFACTURERS ARE CONFIDENT THEY WILL MEET THE DEMAND FOR GOODS OR SERVICES IN 2023/2024

SUPPLY CHAINS FIT FOR THE FUTURE

Supply chain resilience is currently top of the agenda for policymakers, Government and business leaders, and rightly so. External business factors such as the pandemic, Brexit and large-scale geopolitical shifts such as the Russian invasion of Ukraine and inflation have highlighted how important it is to invest in global supply chain resilience.

It is unsurprising then that we have seen a range of strategies adopted by manufacturers to mitigate these pressures both now and in the future. Somewhat unsurprisingly, we find that the top action has been increased supply chain monitoring, in order to track the pressures and potential bottlenecks in supply chains. This is closely followed by the diversification of suppliers, a continued trend which focuses on spreading the risk.

But manufacturers are going beyond this; they are exploring and, in some cases, implementing long-term supply contracts and making changes to commercial terms and conditions in a bid to lessen their exposure to supply chain disruption.

What is somewhat concerning is the lack of companies that have opted for external advice and training, with just one in five having implemented this. Even fewer (15%) have sought out and used Government advice. Monitoring and creating visibility within the supply chain is crucial for creating a resilient global supply chain. Not only that, but it also helps drive the net zero agenda, adding huge value to efficiency through production, transport and many other areas. New digital technologies such as cloud computing and AI enable manufacturers to become more sustainable and make their global supply chain more resilient. Sharing real-time data with a client, supplier and transport provider can create a smooth and efficient operation, without empty crates or product shortages.

Manufacturers need help with understanding what technologies are being used and how to acquire them. Businesses need to feel confident that their security won't be breached and that commercially sensitive information is protected before they share their data with suppliers up and down the chain. And clearly, they need the people, the skills and the timely data to do this right.

RECOMMENDATIONS

While there are many lessons for industry to learn, Government and wider policymakers can help:

- Establish a regional SME advisory service for digital adoption: Accept that the main delivery focus should be regional by appointing a lead delivery partner in each region, to create consistency and level up. Make UK evidence finds that 30% of manufacturers say the lack of vision blocks them from investing more in new digital technologies. This impartial advice could be delivered within existing structures such as the Catapult Network. In a similar vein, regional SME advisory services must be strengthened to include technical, process and change management expertise linked to industrial digitalisation and resource efficiency. SMEs will not engage unless they are confident that they will receive expert and impartial advice.
- Introduce a tax break for businesses that adopt digital solutions: Government should introduce a form of a tax break for businesses that choose to adopt digital solutions, such as blockchain. Evidence shows that the conglomeration effect if a business invests in greater digital solutions across its supply chain can result in greater end-to-end performance, increasing efficiency and productivity. Greater incentives to invest in digital solutions will not only support manufacturers to improve efficiency and productivity, but they will also support the Government in its wider ambition to become a science superpower.
- Introduce a Manufacturing Mentor Scheme: The current Help to Grow Management scheme is a welcome start to tackling the leadership and management challenge in the UK. However, leadership and management schemes need to be far more tailored, with both sectoral and regional focuses. The Government should look at how it encourages recent or early retirees back into the industry to educate and guide the next generation of leaders, managers and business owners with critical skills around culture change, supply chain resilience and Net Zero. This could be built on existing matching platforms but with a focus on sectoral peer-topeer support.

Manufacturers can:

Actively seek to use digital platforms in order to build supplier security: Supply chain vulnerability remains a key risk in 2023, but ever-improving digital technologies allow manufacturers to better anticipate and predict supply chain disruption. Manufacturers should therefore actively implement these technology platforms in their business to ensure they can not only remain competitive, but also increase their security of supply.





More VUCA ahead

A year ago, the first report on *Building Global Resilient Supply Chains* found the long-held supply chain principles of lean and JIT being challenged by new strategies that valued resiliency over efficiency. This was in response to three years of volatility culminating in the events in Ukraine and further energy and supply chain stresses across Europe.

As we roll into 2023, not much has changed in the macro-economic outlook. VUCA (Volatility, Uncertainty, Complexity and Ambiguity) still loom large, and more than 90% of respondents Agree or Strongly Agree that **"supply chains will remain under pressure this year"**.

Like last year, cost pressures dominate the list of supply chain challenges as manufacturers reel from the highest inflation in decades, with increases in raw materials, transport and energy costs topping the priorities.

However, there are some differences in the approaches pursued to build resiliency, with many manufacturers revisiting their sourcing strategies. There is emphasis on proximity-sourcing as a response to supply chain risk and disruption, with 40% of manufacturers reporting an increase in sourcing from the UK and a similar number expecting to this year. Supplier diversification and consolidation is also being pursued as manufacturers reassess their risk profiles.

Decision velocity

As in prior years, supply chain monitoring is seen as the first response to mitigating supply chain pressures, with more than 40% implementing and a further 20% exploring some capability.

But while nearly half (46%) of manufacturers are achieving this through dashboards and analytics, fewer than 14% are taking advantage of the most advanced capabilities of real-time sensors, automation or artificial intelligence and machine learning. It is here that the real value of technology can make a significant difference.

There is no cure for volatility – it is here to stay. However, we can use technology to rapidly identify or predict supply chain disruptions, analyse alternatives, prescribe remedial actions and automate responses. Decision velocity won't prevent volatility and disruption, but it is perhaps the best antidote to mitigating its impact.

As a sponsor of this research and of MakeUK over the years, Infor is delighted to support the key recommendations that manufacturers "Actively seek to use digital platforms in order to build supplier security" to allow manufacturers to better anticipate and predict supply chain disruption, and that Government seeks to "introduce a form of a tax break for businesses that choose to adopt digital solutions".

UK manufacturers have demonstrated their ability to respond to the most demanding conditions with the tools they have at their disposal. Competing for global competitiveness means investing in the latest technologies and skills, and Government has a role in encouraging this.

Andrew Kinder

Senior Vice President, Industry Strategy, Infor





Make UK is backing manufacturing – helping our sector to engineer a digital, global and green future. From the First Industrial Revolution to the emergence of the Fourth, the manufacturing sector has been the UK's economic engine and the world's workshop. The 20,000 manufacturers we represent have created the new technologies of today and are designing the innovations of tomorrow. By investing in their people, they continue to compete on a global stage, providing the solutions to the world's biggest challenges. Together, manufacturing is changing, adapting and transforming to meet the future needs of the UK economy. A forward-thinking, bold and versatile sector, manufacturers are engineering their own future.

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