Drive success with hybrid logistics

How harmonising people, data and technology can optimise the value and impact of innovation, improving efficiency, performance and the customer experience.

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Introduction

The UK logistics sector is vital to the nation's financial success. According to the Logistics Summary Report of 2021, it supports 10% of the country's non-financial business economy. More than 205,000 logistics businesses together contribute £127 billion gross value added (GVA) annually, results that are indicative of the growth in ecommerce.

In 2021, UK online retail sales averaged 29.2% of total sales, up 10% on 2019 (Office of National Statistics). Meanwhile, the value of B2B ecommerce sales is forecast to rise 18% from £159.3 billion in 2019 to £188 billion by 2024 (Statista).

The race to innovate

The difference between the proportion of logistics businesses that plan to implement key supply chain technologies and those that have actually done so, reveals a window of opportunity to steal a march over your competition. But of course it's how effectively you apply the technology that really counts...

53% have requested real-time end customer visibility tools

Only 18% already have them

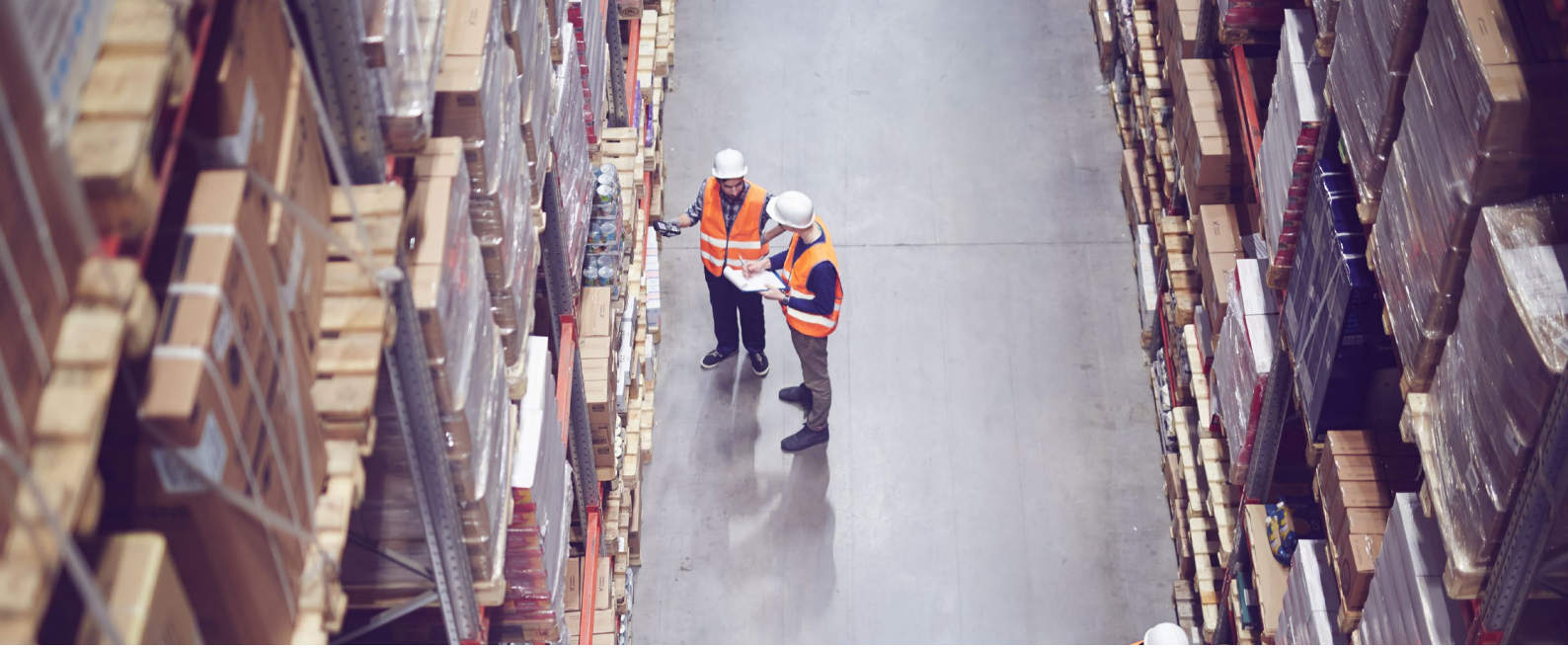
54% are focused on using automation to improve customer service

Only 41% already have

72% view technology as a source of competitive advantage

Only 47% manage supply chain management technology horizontally and holistically across functional domains

Sources: State of Last Mile Logistics 2021; Gartner Predicts 2021 – Supply Chain Technology



Despite the challenges brought by the pandemic and Brexit, the UK logistics sector has generally adapted well and is flourishing. Many companies rapidly adopted digital technologies to capitalise on the significant increase in online ordering and help cope with the additional pressure on resources.

With the recovery underway and competition at an all-time high, it's vital for businesses to maintain this momentum to keep pace with rivals and thrive in the post-pandemic world. Gartner's Predicts 2021 – Supply Chain Technology report determines that technology holds the key, with 72% of supply chain organisations viewing it as a vital source of competitive advantage.

But you're not alone in the technology race. Reflecting the increased profile of data and technology, over 50% of supply chain leaders have created a variety of IT roles. These focus on developing or acquiring technology and innovation.

Convenience factor

"The impact of delivery on customer loyalty can't be underestimated. A whopping 95% of consumers say that convenient delivery options are a major factor in their choice of retailer."

Retail Gazette, March 2021

The report also highlights the technologies that will impact supply chain organisations over the next three to five years.

Firstly, demand for robotics and automation continues to grow, with the pandemic emphasising the importance of leveraging the technology to both drive efficiencies and protect workers. This is supported by the findings of the Last Mile Logistics 2021 report, which revealed that 54% of logistics businesses seek to adopt automation to improve customer service. Some 41% have already done so, and 61% consider automated systems a priority.

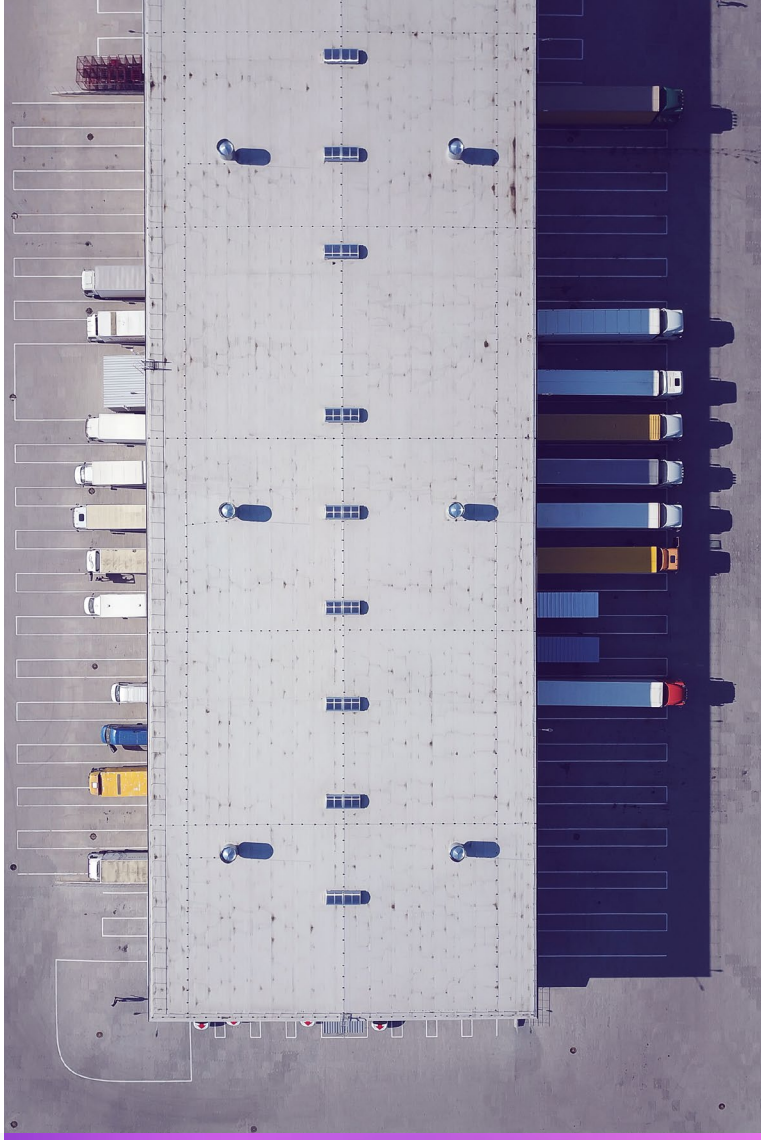
Secondly, visibility and transparency within functions like transportation and across supply chain operations remain challenging. That's why companies plan to invest to address these issues over the next three to five years. Some 53% of Last Mile Logistics report respondents have requested real-time end customer visibility tools that provide instant updates on delivery status.

But innovating through new technology alone is not enough. A major challenge across the sector is presented by legacy systems. These must be either successfully replaced or integrated seamlessly with new technologies. Some 41% of logistics companies said that outdated business processes and manual operations are hindering their ability to improve delivery operations. It's critical that the adoption of new technologies addresses these and other pressing issues already identified.

Arguably even more important is the successful integration of people, data and technology, so they can work in harmony. This optimises human resources and performance, and instills a data-driven culture that enables your teams to make better, faster decisions.

Key to this is developing effective hybrid ways of working, which drive your business forward by empowering your people to be the best they can be, maximising the value and impact of technology. By transforming working practices, you will increase efficiency and performance, and optimise your supply chain and the customer experience. You'll also improve your employee experience, driving motivation and boosting morale.

Those logistics companies that harmonise their people, data and technology most effectively will best meet growing customer expectations, and drive confidence, trust and loyalty to help them excel through the recovery and beyond.



The freshest, most accurate data

"Today, IoT is important because emerging supply chain techniques need the freshest, most accurate data," according to Amber Salley, director and analyst, Gartner.

IoT World Today https://www.iotworldtoday.com/2021/01/18/supply-chain-analytics-and-iot-loom-large-in-wake-of-2020-disruption/

Taking the right approach to hybrid logistics can bring success in the following ways:

Data-driven decision-making. Delivered.

If there's one thing businesses have learned from the pandemic, it's the need to have the agility to respond quickly and effectively to sudden challenges. This requires smarter, faster, informed decision-making.

A more visible, transparent supply chain means greater control and quicker response. It enables problems with low stock levels, traffic congestion and vehicle performance to be predicted or quickly identified and dealt with to minimise disruption.

There's also a recognised need for quality control and service, supported by the ability to monitor the delivery of packages and other items. This doesn't just mean tracking progress from receipt to customer, but also monitoring temperature and movement of items to make sure they arrive in perfect condition.

Closer monitoring of systems and machinery in distribution hubs enables problems to be detected and rectified before they result in costly downtime that disrupts the supply chain.

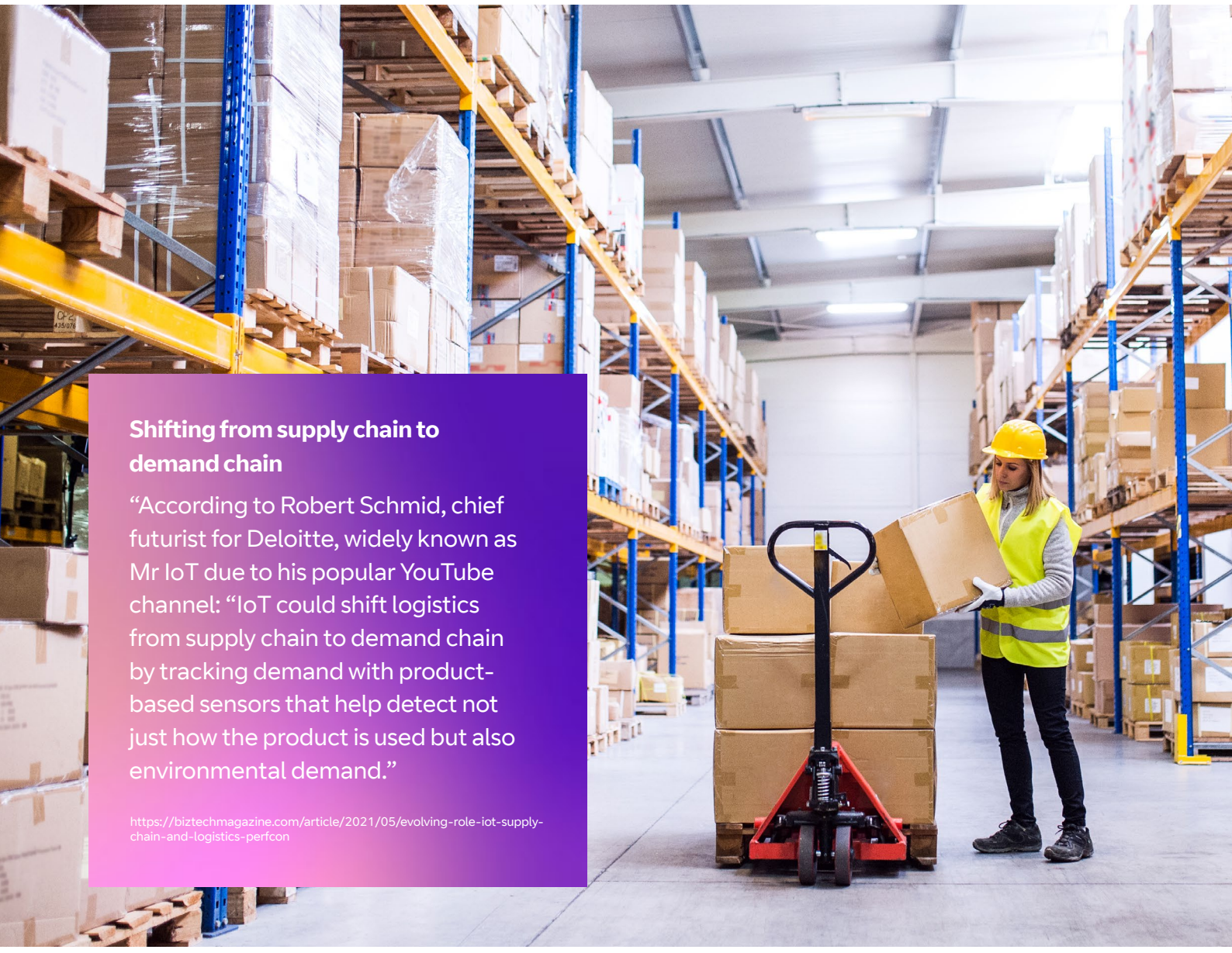
Parcel visibility and monitoring can be optimised by applying Internet of Things (IoT) sensor technology across the supply chain, supported by a robust network. The data collected at key points can be turned into the actionable insight that logistics teams need to make faster, better decisions using AI-driven data analytics solutions. This optimises efficiency and service, and reduces costs.

To achieve this you will need a fast reliable network for rapid data capture, transfer and processing. You'll also require an analytics solution to standardise and interpret the data to meet the specific requirements of the team using it. Implemented correctly, this will present the findings in a meaningful way, delivering total supply chain visibility.

Driving collective decision-making

"Real-time data within the supply chain is extremely valuable, allowing companies to get ahead of disruptions, predict peaks, and improve planning," concludes the 2022 Third-Party Logistics Study. "Data can drive more collective decision-making across informational silos that exist within shippers' operations."

https://www.datanami.com/2021/09/22/logistics-operators-look-to-data-technology-for-advantage/



Shifting from supply chain to demand chain

"According to Robert Schmid, chief futurist for Deloitte, widely known as Mr IoT due to his popular YouTube channel: "IoT could shift logistics from supply chain to demand chain by tracking demand with product-based sensors that help detect not just how the product is used but also environmental demand."

https://biztechmagazine.com/article/2021/05/evolving-role-iot-supply-chain-and-logistics-perfcon

Set the field force free. Optimise remote working.

How quickly, safely and securely a field force moves items through the supply chain will determine the level of confidence customers have in a logistics business. When it comes to customer expectation, the pandemic has raised the stakes. Just one poor experience could mean not only losing an existing customer, but also the recipient – possibly a potential customer – and any others who might hear about it.

The team in the field are only as good as the support, guidance and tools they are given. There are numerous variables at play, from route planning and traffic congestion, to scheduling, vehicle maintenance and security. Gaining control of these variables takes logistics companies closer to the friction-free predictability they dream of. And the employees on the ground are key to the quality of response.

There's a range of technology solutions that drive the speed, efficiency and consistency of the delivery process. But they need to be built around the field force and integrated to optimise their effectiveness. If employees receive the training they need to get the most out of new technologies and the benefits they bring, they'll understand and appreciate the clear investment in them, as well as in the business. This includes better, easier, safer and more secure ways of working. In an environment where recruitment presents a growing challenge, this is critical to attract and retain the best staff.

Fleet tracking boosts customer service

"Customer service among US delivery companies improved by 54% in 2020 because of fleet tracking,"

Verizon Fleet Technology Trends Reports

Only 5% of delivery fleets are using route optimisation

"Our research indicates that only about 5% of fleets are using route optimisation," says Colin Ferguson, co-founder of route optimisation specialist The Algorithm People. "This means that a significant amount of organisations are operating at a commercial disadvantage, because they are not realising the efficiency and cost-saving benefits."

https://www.commercialfleet.org/fleet-management/best-practices/nine-ways-to-improve-your-delivery-fleet

High performing technology solutions

When it comes to technology, field forces need a reliable, fast mobile network that provides the robust connectivity needed to track people, vehicles and packages. This way, any problems can be quickly identified, plus employees' personal safety and security can be assured, as well as the items they're delivering.

Complete drop-offs and pick-ups as efficiently as possible

"Delivery fleets that understand how to optimise routes reap the benefits in their bottom line. Optimised routes help drivers complete drop-offs and pick-ups as efficiently as possible, not only reducing fuel use but also helping to lower emissions"

Fleet Operator Recognition Scheme (FORS) business services manager Paul Wilkes.

https://www.commercialfleet.org/fleet-management/best-practices/nine-ways-to-improve-your-delivery-fleet

Packages can be tracked using smart labels equipped with IoT sensors, which check location and monitor temperature and movement. IoT-driven telematics can carry out predictive maintenance on delivery vehicles, monitoring critical areas to anticipate problems, avoid breakdowns and spot potential safety issues. Smart cameras can reveal traffic flows and record any accidents.

Applications can be tailored to the needs of a field force. They can be installed onto a rugged device, for example, which can provide daily delivery schedules, routes, and customer information. This enables employees to make direct contact and learn about changes in delivery criteria on the ground. Giving a field force input into the functionality of the app and a choice of device can help accelerate adoption and performance.

Autonomous vehicles and drones are already being trialled, and will play a key role in broadening the field force of the future, but only if the network is 5G-enabled with the power and reliability to ensure a strong, consistent signal. Right now, it's all about people – logistics employees – who will remain an important part of the delivery process long after the introduction of 5G. Developing the right hybrid culture is vital to the future success of any delivery network.

Why create an eLearning portal for couriers?

Mark Footman, chief operating officer at courier CitySprint, says: "We launched an eLearning portal to increase the accreditation levels of couriers, particularly to support the extra demand in healthcare services. This also benefited our couriers, who were able to boost their earnings by increasing the number of jobs they could accept."

https://www.commercialfleet.org/fleet-management/best-practices/nine-ways-to-improve-your-delivery-fleet

Maximise resources with people and machines in perfect harmony.

As any smart investor will know, good short and medium returns in the UK's industrial construction sector seem likely – specifically in warehousing and distribution hubs. A perfect storm of Brexit and pandemic-related disruption to European and global supply chains, coupled with the recent e-commerce explosion, means that nearly 37 million square feet of warehouse and distribution space was slated for construction in 2021. This is an increase from 23 million sq. ft in 2020 and 21 million in 2019, according to a report by property consultancy Knight Frank.

Winning the space race for the storage and processing of goods is vital to logistics businesses. The bigger the capacity, the bigger the number of items that can be handled. The more local the distribution hub, the less complex the supply chain and the less prone to disruption.

But of course, size isn't everything. In fact, in logistics hub terms it equals expense. Expanding storage and distribution facilities also means taking on more

Enter the robot

By 2025, over 4 million

commercial robots will be installed in over 50,000 warehouses, up from just under 4,000 robotic warehouses in 2018, according to ABI Research.

"Robots enable warehouses to scale operations up or down as required while offering major efficiency gains and mitigating inherent challenges associated with labour and staffing," says Nick Finill, Senior Analyst at ABI Research.

https://www.businesswire.com/news/home/20190326005153/en/50000-Warehouses-to-Use-Robots-by-2025-as-Barriers-to-Entry-Fall-and-AI-Innovation-Accelerates

people to run them. This adds to cost and also creates resourcing problems with staff currently in short supply, and no sign of improvement on the horizon.

Knight Frank estimates that for every £1bn of online sales, approximately 1.36m sq ft of warehouse space is required. With UK online sales forecast to rise by up to £67 billion over the next five years, we could see e-commerce drive additional requirements of 92 million sq. ft. That means more business for logistics firms, but it also means rapidly rising costs.

Exactly how high these costs become depends on the speed with which items pass through the hub. Faster processing means more items can be processed, requiring less storage space and resulting in lower costs. Technology holds the key to picking up the pace, but it can also ease the human resources burden and help people make faster, smarter, data-driven decisions.

For example, the introduction of robotic process automation to carry out certain repetitive tasks increases accuracy as well as processing speed. It frees up people from time-consuming, unrewarding work to focus on more skilled, higher value activities that deliver greater job satisfaction, and so increase productivity, performance and motivation. Of course, this also accelerates the supply chain by handling more items more quickly, increasing revenue earning potential and boosting customer service.

Robotics help people work better

"Smart robots will transform how people work through the analysis of data and offloading repetitive tasks," according to Gartner's Hype Cycle for Consumer Goods, 2021 report.

https://www.roboticsandinnovation.co.uk/news/warehousing/report-shows-smart-robots-key-to-facing-fulfilment-challenges.html

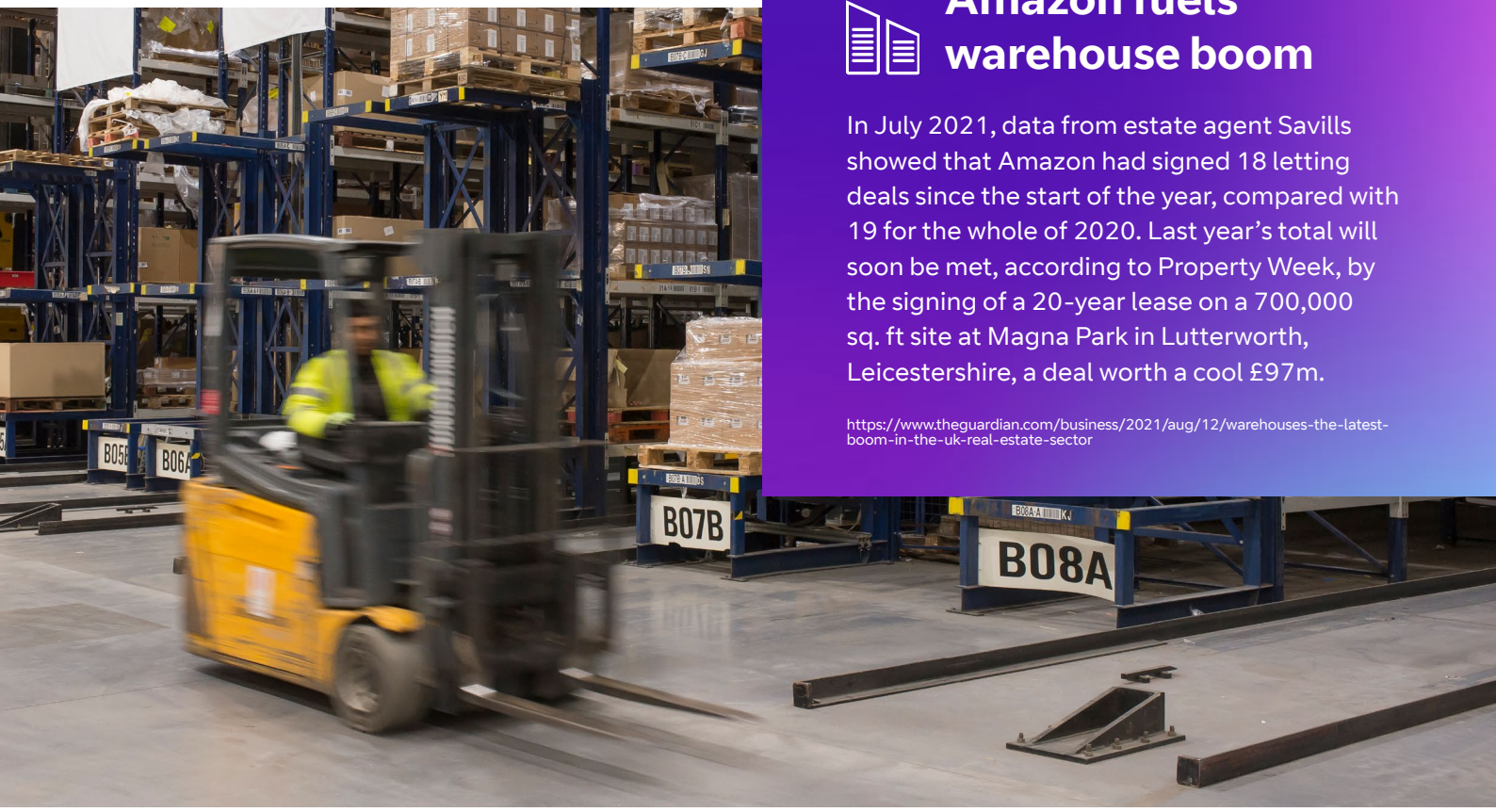
https://www.gartner.com/doc/reprints?id=1-273TBKTP&ct=210805&st=sb

Meanwhile, costly downtime and supply chain disruption can be minimised using IoT sensors to monitor machinery and AI-driven analytics to extract key insight from the resulting data. This provides the intelligence needed to spot failing equipment early, and diagnose and resolve any problems more quickly.

Implementing these technologies to liberate and better equip warehouse and distribution hub teams requires a robust, powerful network that can seamlessly connect people, technology and machines. What's more, the wider the geographical

coverage the better, as this enables development of local hubs that can better meet customer expectations by driving down delivery times to potentially on the same day orders are placed.

The network should also be 5G-ready, so logistics companies can quickly capitalise on next-generation mobile connectivity, and build mobile private networks around their hubs. This will bring the stability and security needed to support advanced robotics and real time data processing, through greater reliability and minimum latency.



Amazon fuels warehouse boom

In July 2021, data from estate agent Savills showed that Amazon had signed 18 letting deals since the start of the year, compared with 19 for the whole of 2020. Last year's total will soon be met, according to Property Week, by the signing of a 20-year lease on a 700,000 sq. ft site at Magna Park in Lutterworth, Leicestershire, a deal worth a cool £97m.

https://www.theguardian.com/business/2021/aug/12/warehouses-the-latest-boom-in-the-uk-real-estate-sector

Bring staff and customers closer together for the personal touch.

With both businesses and consumers increasingly reliant on online ordering for a greater variety of items, the speed of delivery has never been more business critical. Originally driven by the pandemic, this shows no sign of declining due to saved time, reduced costs and increased convenience. Plus, a more dispersed workforce means business orders are no longer sent to a single office location, but to individual employees at home, increasing the complexity of the fabled 'last mile' of the delivery process.

These trends have ramped up the customer need to know order status, both for peace of mind and convenience. In fact, customer transparency and control after purchase – a long-neglected phase of the online buying process – has become so important that it's now a key point of difference for online traders, and consequently logistics companies. Those that offer the most seamless, informed and secure post-purchase experience will be the winners from a business and consumer perspective, boosting customer confidence and driving trust and loyalty.

Winning the ‘last mile’ experience race is all about a connected delivery process. Tracking items from despatch to destination, and making this information accessible in real time to customers through live online portals and mobile apps, links field forces and administration teams to customers, and gives them the tools to deliver the best possible service. They can alert customers to delays or other problems as soon as possible, and adjust collection, delivery time and location, according to changes in personal schedules.

Smart item labelling and delivery vehicle tracking through IoT sensors connected to a broad, robust, fast, reliable mobile network and supported by AI-driven data analytics can provide the required real-time data to feed into customer and field force apps. This data should also be available through an online portal and accessible to administration teams and call centre staff so they have access to a real-time view of the delivery process and changing customer needs. Predictable elements, such as customer feedback on shifting delivery locations and times, can be automated for a more seamless delivery experience. This also frees up call centre and customer service resources.

With so many forces at play, streamlining the last mile customer experience is complex. The underlying network must be fit for purpose and 5G-ready to take advantage of this game -changing innovation once it’s available. IoT sensors strategically applied to items enable field forces to capture the necessary data. This can then be analysed in the cloud and securely shared with customer and field force apps, and customer service teams.

To make this process work as efficiently as possible and provide the necessary future scalability, it’s vital to select a technology partner that thoroughly understands the complexity of the modern last mile process. The ideal partner will also implement and integrate solutions from the network up to the call centre, and provide the necessary training to optimise adoption and performance. There’s no room for compromise or complacency at this customer-critical stage.

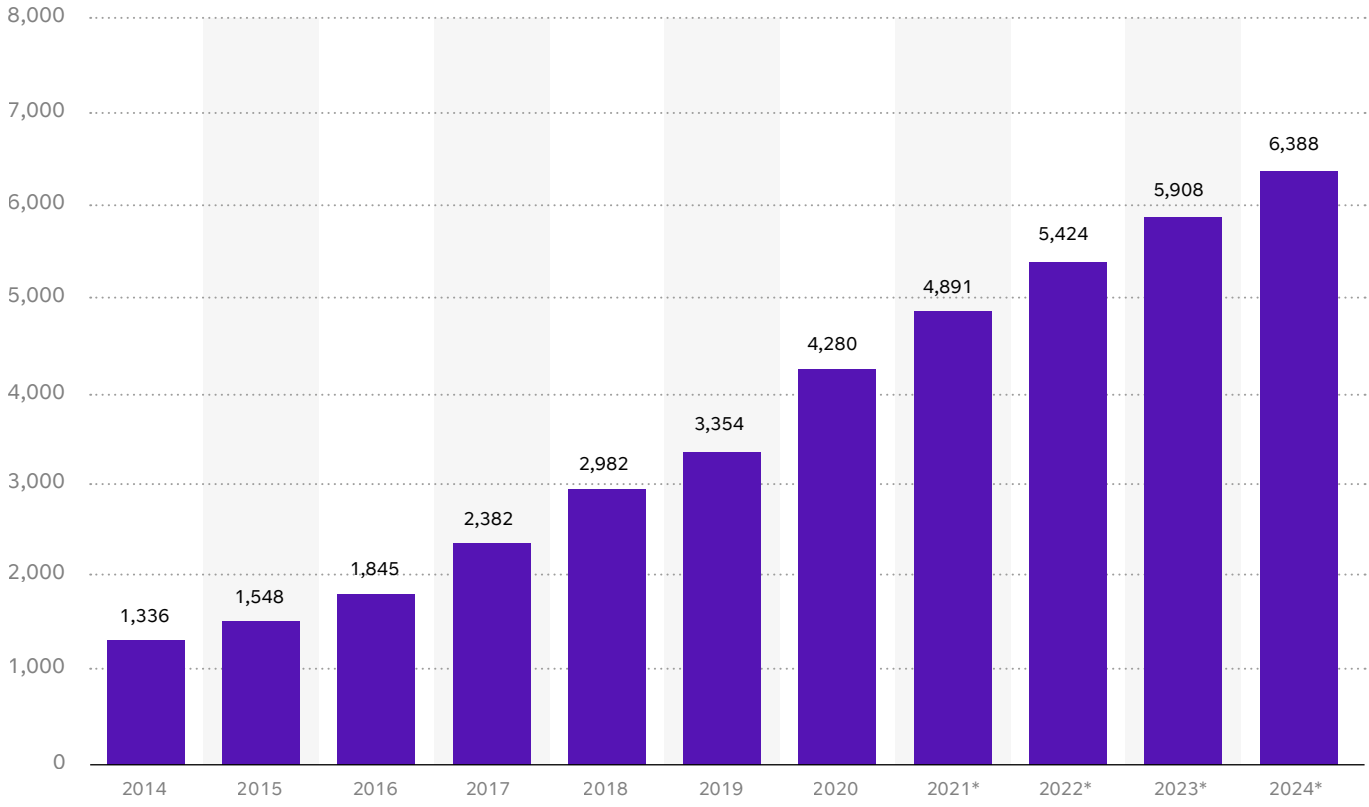
Rocketing online sales increase the importance of the last mile experience

- The global B2B ecommerce market size was valued at USD 6.64 trillion in 2020 and is expected to expand at a compound annual growth rate (CAGR) of 18.7% from 2021 to 2028 (Grand View Research).
- Global online sales are forecast to reach 22% of all retail sales in 2023 (vs. 14.1% in 2019, Statista).
- Retail ecommerce market sales worldwide will reach $6.54 trillion in 2023 (vs. $3.53 trillion in 2019, Statista).
- By 2040, 95% of retail purchases are likely to be made online and traditional retail may be hardly existent (Nasdaq).

https://www.webinterpret.com/uk/blog/ecommerce-statistics/

Growth in retail e-commerce sales worldwide from 2014 to 2024

(in billion U.S. dollars)



Adding value to customers' post-purchase experience

56%
of customers claim that they're disappointed by the service they receive post-purchase from a retailer's or an e-commerce site.

40%
of customers, according to Support, believe the post-purchase experience makes their brand experience more memorable.

86%
of customers say the post-buying experience is fundamental to their decision to buy again.

Build confidence. Keep data and systems safe.

Logistics businesses need more than the consistent robust connectivity a powerful, reliable network brings to deploy the latest IoT and AI technology, capture key data and turn it into actionable insight. The network must also be as secure as possible to safeguard the growing amounts of business-critical data and avoid what happened recently at Hellman Worldwide Logistics.

On 9 December 2021, the Germany-based business disabled servers at its central data centre after a security breach was detected. Hellmann, which provides air and sea freight, and rail and road transportation across 173 countries, was targeted by RansomEXX ransomware, putting its business and customer data at serious risk, according to Security Week.

Such attacks are increasingly common. In addition to data compromise and ransom demands, they can also severely disrupt operations if systems are disabled and data is lost. Arguably more damaging is the reputational impact and loss of customer trust, especially important in logistics. Hellmann reported that its customers were experiencing an increasing

UK cybercrime incidents increase

"The National Cyber Security Centre said it had helped deal with a 7.5% increase in cases in the year to August 2021, fuelled by a surge in ransomware attacks with criminal hackers seizing control of corporate data and demanding payment in cryptocurrency for its return."

National Cyber Security Centre

Ransomware attacks on the rise

The Supply Chain Disruptions and Cybersecurity in Logistics report, published in April 2021 in the US, reveals a sector at risk:

3x

From 2019 to 2020, **ransomware attacks on shipping and logistics firms tripled**.

#1

Ransomware is the #1 cyber threat to logistics companies today, suggesting a situation of imminent and extreme risk.

100%

of the companies surveyed showed some evidence of threat targeting against their network.

number of fraudulent calls and emails following the incident, as the hackers quickly began monetising stolen information.

Cyberattacks remain a continual threat in the transport and logistics industry. In addition to knocking customer confidence, they can seriously damage workforce morale. Two notable recent incidents include the forced IT systems shut down at Japan Post-owned freight forwarder Toll Group in February 2020, and the NotPetya malware cyberattack on Damco, the freight forwarding and logistics arm of Danish container shipping giant Maersk. The latter resulted in a US$8m loss in turnover in the first half of 2017.

Cybercrime experts Intel 471 recommend that logistics companies constantly monitor their systems to identify malicious behaviour, and scale up tools to prevent attacks. Despite warnings, a report in April 2021, assessing 20 of the top global shipping companies, found that 90% of the organisations studied had insufficient cybersecurity.

As well as providing a secure network with maximum resilience to deter cyberattacks, a technology partner should be able to offer expert advice and guidance on securing the tools and applications necessary to capture and analyse the data logistics teams need. Ideally, they should also be able to provide access to an expert cybersecurity team. During selection, it's important to ask any potential partners about the availability of 5G-powered mobile private networks, upcoming technology that will not only deliver the fastest and most reliable connectivity to optimise IoT, AI and automation, but also provide a secure environment.

BT: the power to protect

We're trusted to protect nation-states and royalty. We have 3,000 personnel dedicated to cybersecurity, including ethical hackers, a specialist innovation consultancy practice, and we invest £40m a year in cybersecurity.

Be there. Reaching customers and colleagues, wherever they are.

Every business wants to reach as many customers as possible to optimise opportunities and revenue potential. For logistics, the widest geographical footprint is the answer. Right now, this footprint is limited to commercial and physical viability to collect and deliver items using manned, wheeled vehicles.

As 5G networks grow, they'll provide the power and reliability for logistics companies to run fleets of automated vehicles and drones safely and securely, making it possible to reach the most remote parts of the UK, and also increase capacity across the country in general. In both cases, the network holds the key, in terms of geographical reach and 5G-readiness for automation.

A logistics company's network should at least have the same footprint as its customer base, and ideally be bigger or scalable enough to grow as its footprint increases. Scalability requires agility, to give logistics teams the connectivity and data they need to deliver a consistent high standard of service to all customers. In remote areas in particular, this is vital from a safety and security perspective. It's also important for the network signal to be consistently strong to avoid dropouts that can leave field teams and customers disconnected.

Proximity to a warehouse or distribution hub also affects speed of delivery and corresponding level of customer service. The closer the customer, the faster items can be delivered. More remote areas and urban areas that don't have a distribution point nearby are already at a disadvantage. This emphasises the importance of 5G-ready networks, which support the creation of temporary or mobile smart hubs connected by secure, reliable and fast local 5G mobile private networks. These can be even be set up in areas with no existing mobile signal. Matching the coverage, power and scalability of your network to business goals is essential to pull clear of the competition.

Empower your most valuable asset. Your people.

No matter how far technology advances, how intelligent and powerful it becomes, or how it transforms logistics, your people will always be your most valuable asset.

Consider technology an investment in your people. Improving their working environment will help them work smarter, better and more flexibly, and will optimise team performance and productivity.

Watch your business grow

To achieve the business benefits identified in this report, it's vital to integrate the right technology, with the right workforce, in the right way. Let your people shine – by giving them the best tools, you'll maximise adoption, embed motivation and empower them to perform to the best of their abilities.

Creating a working environment where technology is an enabler for your people will help you keep and attract the best talent at a time when skills are in short supply. Simply buying and implementing technology is not enough. You need a partner who not only understands your industry, your business and how to help you best achieve digital transformation, but one who also appreciates the relationship between people and technology, with the expertise to harmonise both – from strategy, to implementation, to training, to adoption, to ongoing management.

Who will guide you on your ongoing innovation journey, deliver state of the art operations and help keep your business agile and successful?

Your future starts here.

We are not only a leading technology provider and one of the UK's biggest investors in innovation. Just like you, we also have a UK-wide field force, plus a retail business with an extensive supply chain, which we are transforming with cutting-edge digital technology to improve efficiency, performance and the customer experience.

Partner with us, and you'll gain from all this logistics experience and expertise, plus benefit from the most powerful, reliable and broad network in the UK. Meanwhile, our cutting-edge knowledge of the latest digital innovation means we'll ensure you get the best out of IoT, AI and 5G on our network.

This, combined with our strong established relationships with best of breed technology vendors, from Cisco to Microsoft, means we can build the solutions your business and your workforce need, and seamlessly integrate technology with your people and systems to optimise your operations and deliver the competitive advantage you need.

Furthermore, we have the commercial strength and resources to ensure you start to innovate in the right way today, and continue to do so tomorrow.

Why not get in touch to discuss how we can take you and your people beyond the recovery, to a new era of business growth?

Offices worldwide

October 2022