



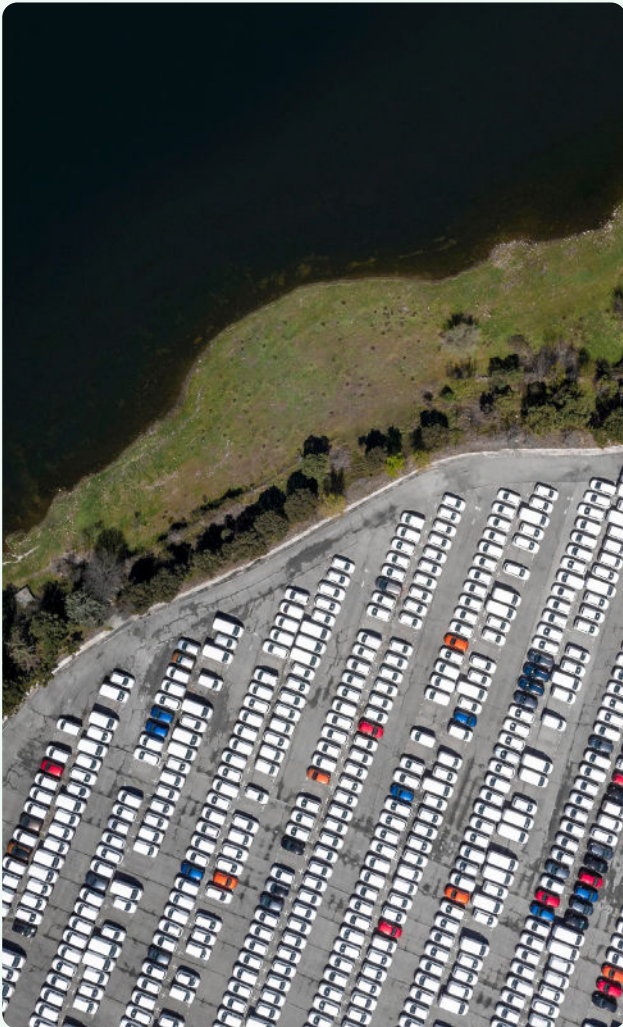
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What automotive OEMs are looking for in 2024

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What automotive OEMs are looking for in 2024



Anyone responsible for delivering complex supply chain solutions will be fully aware of how difficult the past few years have been. The cost of living crisis, war in Europe, and ongoing political uncertainty across the world being a few of the major reasons for that uncertainty.

As a Tier 1 or Tier 2 supplier, making sure that your business's supply chains in 2024 (and beyond) can address sudden and disruptive changes lies in doing two things:

1. Understanding current and growing trends
2. Understanding how to use technology to build systems that can withstand those changes

In this eBook, we'll take a look at the trends and emerging issues likely to dominate automotive supply chains this year. We'll also examine how Electronic Data Interchange (EDI), when implemented correctly, not only helps your organisation address inevitable changes in the automotive space — but help you progress in the long run.

Part 1: The twin trends in supply chains



An overview of the current supply chain landscape — across the world and not just within the automotive sector — reveals two trends dominating above all others:



The risk of supply chain disruption



The need for sustainable practices

For reasons we'll go into in more depth later, the standard response to potential supply chain disruption (e.g. sourcing alternative supply routes and suppliers by switching to nearshoring or friend shoring) isn't readily available to those operating in the automotive industry.

When it comes to the latter trend, the key which will enable OEMs to fully commit to sustainable practices — as both a brand differentiator and to address regulatory compliance — is the ability to trace and showcase the behaviour of every party involved in the supply chain.

EDI plays a major role here. As a longstanding and reliable form of communication, businesses across various industries

(automotive chief among them) have highly benefited from EDI in tracking comms between organisations and suppliers. To the point that it's grown from being a value-add, to a must-have for seamless operations.

Consider the example of an individual motor vehicle. In this case, a business would have to be capable of verifying sustainable practices of multiple suppliers across Tiers 1 and 2 and beyond, to the suppliers who supply the suppliers, so to speak.

Working with multiple suppliers from a range of territories can already be an administrative and bureaucratic maze. The only way of guaranteeing that that maze involves sustainable standards and offers end-to-end transparency is by leveraging the communication benefits of EDI.

Key takeaways and strategies for your business

- Using EDI will enable suppliers to sell themselves as able to enhance the stability of the wider supply chain against the risk of disruption.
- As sustainability becomes more important, the ability to trace sustainable practices along the entire supply chain will drive more of the decision making of OEMs. EDI will enable your company to be as transparent as possible when it comes to your own green initiatives and those of your suppliers.

Part 2: Sustainability initiatives

The push for sustainability in supply chains is driven by two main factors. The first being consumer behaviour.

According to Deloitte, 30% of consumers have ceased purchasing certain products due to sustainability concerns.¹ KPMG's findings reinforce this, showing that 67% of consumers actively seek eco-friendly options.² Furthermore, the Financial Times highlighted that a robust ESG strategy enhances the appeal of mid-market companies to investors and partners by showcasing their commitment to goals like achieving net zero.³



The second driver is regulatory changes, particularly within the automotive sector. For example, the EU has set ambitious targets to reduce emissions, mandating a 55% cut for cars and 50% for vans by 2030 and banning new petrol and diesel car sales by 2035.⁴ This regulation pivots the industry towards electric vehicles (EVs), escalating the demand for specific components such as semiconductors and batteries.

Earlier this year, the UK Zero Emission Vehicle (ZEV) Mandate, the government pathway to sustainability, came into force.⁵ Under this legislation 80% of new cars and 70% of new vans sold in Great Britain will now be zero emission by 2030, increasing to 100% by 2035.

This means that UK automotive supply chains need to be able to deal with a rapid upscaling of battery production and the shift to electric vehicles.



Regulatory impacts are also seen in directives like the EU's Corporate Sustainability Reporting Directive (CSRD), effective from 2025⁶. This directive requires larger and listed companies to disclose the social and environmental impacts of their operations. For automotive companies, this includes reporting on emissions not just from direct operations (Scope 1) and purchased electricity (Scope 2), but potentially also from the broader supply chain (Scope 3).

Currently, while reporting on Scope 3 emissions remains voluntary in the UK, it is likely to become mandatory.⁷ This shift underscores the importance of capturing comprehensive emissions data to provide a transparent and accurate sustainability report. For OEMs, this will involve collaborating closely with suppliers to gather and consolidate emissions data from the entire supply chain.

According to figures found by the Society of Motor Manufacturers and Traders (SMMT), shifts of this kind have already seen sustainability placed at the heart of the strategies for growth pursued by automotive OEMs:



In 2022, battery electric vehicles (BEVs) accounted for 16.6% of new car registrations – overtaking diesel to become the second most popular choice after petrol



Plug in vehicles (BEVs and plug in hybrid electric vehicles) accounted for 22.9% of new registrations in 2022, a record high number



The fact that hybrid electric vehicles (HEVs) also increased in number meant that average CO2 tailpipe emissions fell by 6.9% to 111.4g/km



CO2 emissions across the UK automotive industry as a whole fell by 2.7%, a reduction of 17,685 tonnes CO2 per year – this represented a drop of 71% in emissions since 1999 (the year of the first SMMT report)⁸



At the same time, the amount of industry waste going to landfill dropped by 35.3% year on year, meaning the amount since 1999 had been reduced by 99%, with the amount of material being reused and recycled across the industry rose by 19.6%.

Statistics of this kind underline the importance of sustainability to automotive OEMs. The same report detailed how organisations in the supply chain are responding to this challenge.

The figures come from Autocraft, Caterpillar, Michelin and Unipart, companies which employed more than 1500 people in 2022.

Since then, the activity level of these companies rose by 26.7% but, despite this increase in output, the amount of energy used across the companies dropped by 4.3%. The amount of energy used per tonne of output shipped dropped by 23.4%. At the same time, these companies reported a 60% increase in on-site renewable energy production, helping to drive a drop in CO2 emissions of 8.2%.

In a nutshell: achieving better sustainability and greater growth in tandem is entirely possible. And that similarly comes down to ensuring that all activities are properly communicated and traced.

Key takeaways and strategies for your business

- Sustainability is now a must-have for all automotive OEM suppliers. If you're not already focussing on it, you can be sure your competitors are.
- You need to be able to track, collate and share your own figures and those of your suppliers for metrics such as energy consumption, waste and recycling. Basically, direct efforts towards tracking any and all communications between you and your suppliers.

Part 3: Digital isn't necessarily the solution

The automotive supply chain is a prime example that technology alone cannot solve issues like supply chain stability and operational effectiveness. Expertise and experience are crucial.

According to the PwC 2024 Digital Trends in Operations Survey, which involved 600 operations and supply chain officers, 45% of CEOs fear their companies may not survive the next decade without significant changes.⁹

Despite heavy investment in technology, 69% of these officers report that these investments have not met expectations. Companies often distribute funds across various technologies without a unified strategy, which may contribute to this shortfall. Notably, 62% of investment goes to cloud technology, followed by AI and machine learning at 55%, data ecosystems at 33%, and ERP enhancements at 27%.

This fragmented approach usually focuses on short-term gains rather than long-term strategic value, leading to a continuous cycle of tech investments primarily aimed at meeting the latest cybersecurity and data privacy regulations. Half of the survey respondents cited these regulations as a major reason for upcoming digital investments, while under a third considered climate and trade regulations. Despite 53% recognizing the importance of integrating sustainability into their operations, far fewer have concrete plans to implement such measures.

A telling statistic from the survey is that while half of the respondents increased their tech budgets last year, only 37% modified their

Companies often distribute funds across various technologies listed below:



45% of CEOs fear their companies may not survive the next decade without significant changes



62% of investment goes to cloud technology



55% of investment goes to AI and machine learning



33% of investment goes to data ecosystems



27% of investment goes to ERP enhancements

operating models, and 36% restructured their supply chains. This indicates a trend of adding digital features to inherently flawed frameworks, which likely hinders meaningful improvement.



One way of ensuring that any investment in digital delivers the desired results is to work with existing and proven benchmarks. The [MMOG/LE \(Materials Management Operational Guidelines/Logistics Evaluation\) tool](#), developed by Odette and AIAG, provides a standard framework for evaluating and improving supply chain operations, focusing on key areas such as warehouse management, inventory management, and logistics planning.



The MMOG/LE tool aligns with goals of IATF 16949, one of the most widely recognised global quality standards.

The use of numbers and terminology consistent with IATF 16949 means that MMOG/LE is the industry standard when assessing the supply chain management processes of OEMs as well as Tier 1 and Tier 2 suppliers.

OEMs who utilise MMOG/LE not only expect their Tier 1 and Tier 2 suppliers to do the same, but also expect those suppliers to deploy the standard through their own Tier n sub-suppliers, thus enhancing performance, visibility, sustainability and security throughout the entire supply chain.

Key takeaways and strategies for your business

- Investment in technology is a must, but needs to be carefully focused and managed.
- Using a global standard such as MMOG/LE will help to ensure that tech advances deliver as intended.

Part 4:

Thinking end-to-end

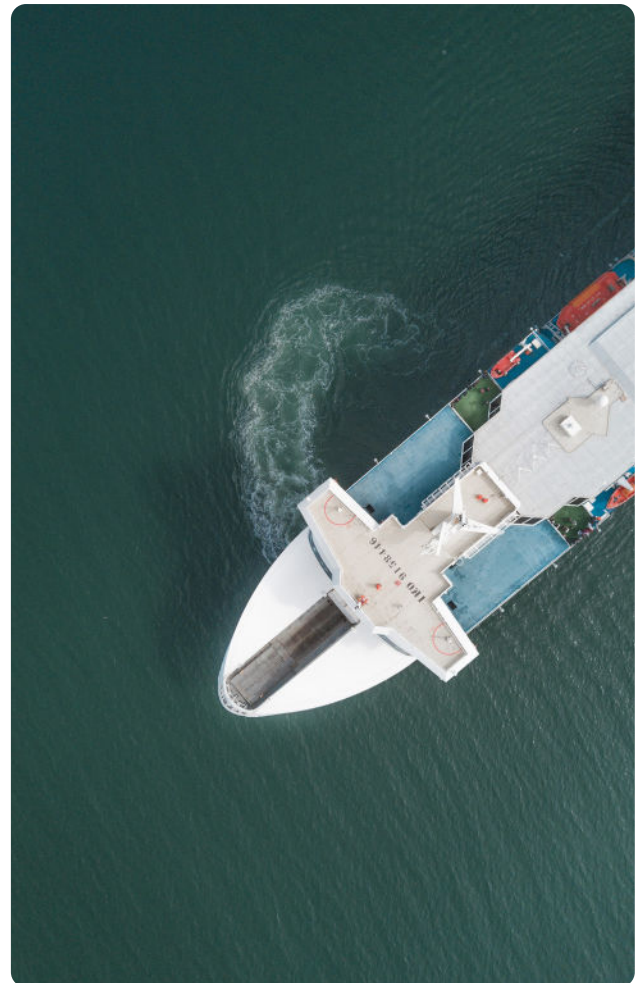
The PwC survey also highlights a critical issue: businesses in the supply chain tend to focus only on internal technological solutions without considering the entire chain. This siloed approach hampers communication and collaboration, leading to inefficiencies in tackling key operational themes — resilience and sustainability. Effective management of these issues requires a comprehensive view that spans not just within a company but also includes Tier 1 and Tier 2 suppliers.

As resilience and sustainability become more central, suppliers not integrating EDI risk falling behind.

According to Gartner’s Balancing Sustainability and Resilience study, supply chain strategies are evolving from cost-cutting and optimisation to focusing on risk resilience and sustainability.¹⁰ In the automotive sector, this shift means actively managing supply disruptions experienced in recent years by closely monitoring the entire supply chain for vulnerabilities and preparing for emergencies with plans that prioritise business continuity and disaster recovery.

This kind of vigilance is necessary due to potential disruptions from economic instability, extreme weather, cyber threats, and geopolitical tensions. For instance, Tesla and Volvo paused European production earlier this year due to a component shortage caused by attacks on container vessels in the Red Sea.¹¹ This situation forced many to bypass the Suez Canal, opting for the longer route around the Cape of Good Hope, which not only delayed component supply but also increased costs due to higher fuel expenses and longer shipping times.

This real-world example underscores the fragility of Just-In-Time supply chains and the need for a robust, end-to-end supply chain strategy.



Key takeaways and strategies for your business

- Working in silos is damaging across supply chains and within individual organisations.
- Eliminating these silos comes down to opening and having full traceability over channels of communication.

Part 5:

Diversification of suppliers

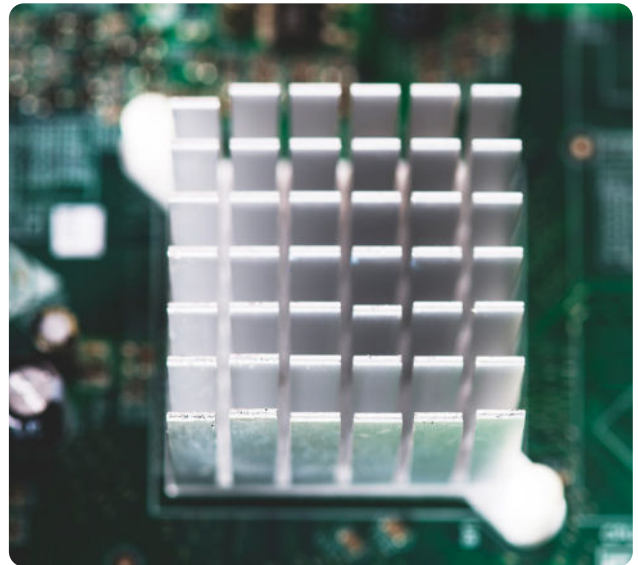
Organisations within the supply chain must diversify their supplier base to mitigate disruption risks effectively. This requires the capability to switch suppliers swiftly if disruptions arise. Seamless and transparent data exchange is crucial, particularly for Original Equipment Manufacturers (OEMs) who manage numerous components from diverse regions.

For Tier 1 and Tier 2 suppliers, adopting EDI is essential to remain competitive and responsive during crises. According to the Business Continuity Institute's Technology in Resilience Report, 90% of businesses have adopted new technologies, including 71.9% investing in cloud technology to support tools like predictive AI and real-time supply chain monitoring.¹²

While technology enhances resilience, the complexity increases with the length and diversity of the supply chain, with suppliers making varied investments based on their specific circumstances.

The use of technology of this kind is clearly designed to increase the resilience and responsiveness of supply chains, but the longer and more multi-faceted a supply chain is, the more complex the situation is likely to become, with different suppliers able to invest in new technology to a varying degree, and each supplier making choices driven by their own individual situation.

90% of businesses have adopted new technologies, including 71.9% investing in cloud technology to support tools like predictive AI and real-time supply chain monitoring.



Key takeaways and strategies for your business

- Communication is the key to resilience, but a greater number of suppliers increases how complex lines of communication can be.
- EDI removes that complexity by imposing common standards which all parties recognise and understand.
- EDI makes it possible to expand the base of suppliers without risking failing lines of communication.

Part 6: Better cyber security measures



Another report from the BCI found that the most concerning risk over the next five years was that of cyber-attacks and data breaches.¹³

Avoiding this risk or, at the very least, minimising the impact any cyber threat is likely to have, will involve a collaborative approach across the many third parties involved in the typical automotive supply chain. Any blind spots along a supply chain in terms of traceability and transparency will be a vulnerable spot to hackers. So each link in the supply chain needs to be able to verify that the links on either side are working to strict cyber security standards and have risk management strategies in place.

The adoption of EDI tools facilitates this kind of rigorous communication.

Suppliers lacking robust and verifiable cyber security measures will struggle to prove to OEMs that they are secure partners.

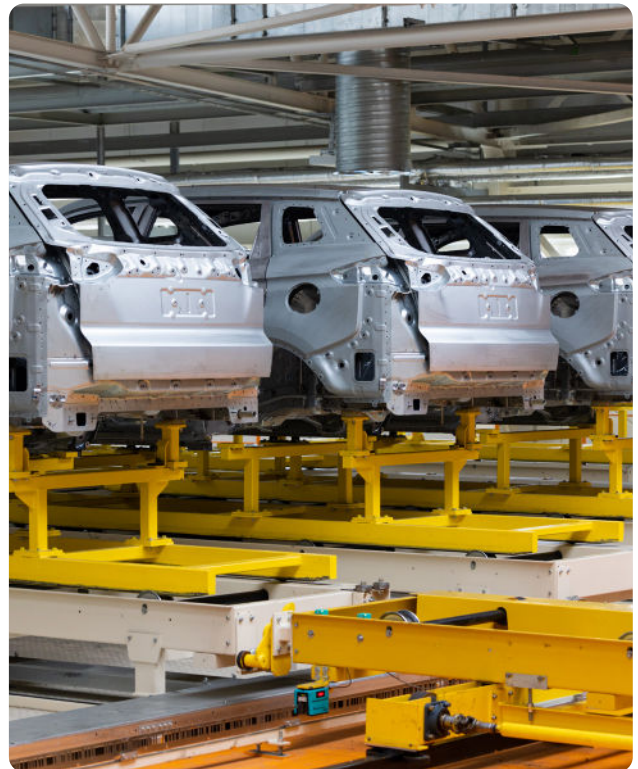
Key takeaways and strategies for your business

- Cyber-security calls for an overview of the whole supply chain, since security is only ever as strong as the potential weakest link.
- EDI facilitates this kind of top-down monitoring by establishing common standards and practices throughout the supply chain.
- EDI also enables quick and effective collaboration as and when new cyber-security threats emerge.

Part 7: Future-proofing through EDI

Adopting EDI is essential for future-proofing automotive supply chains, especially with increasing demands for resilience and sustainability. EDI, provided by experts like us at Data Interchange, offers a suite of technological solutions that streamline the exchange of documents and data among trading partners.

Given the complex, multi-tiered structure of the automotive supply chain, efficient management of documents such as shipping notices, purchase orders, and invoices is critical. The successful and effective flow of information and components throughout the supply chain hinges on all parties understanding and adhering to established EDI industry standards.



These standards include the following:



ANSI X12

The standard used in North America. Common transactions in the automotive sector under this standard include 810 (Invoice), 850 (Purchase Order), and 856 (Advance Ship Notice).



EDIFACT

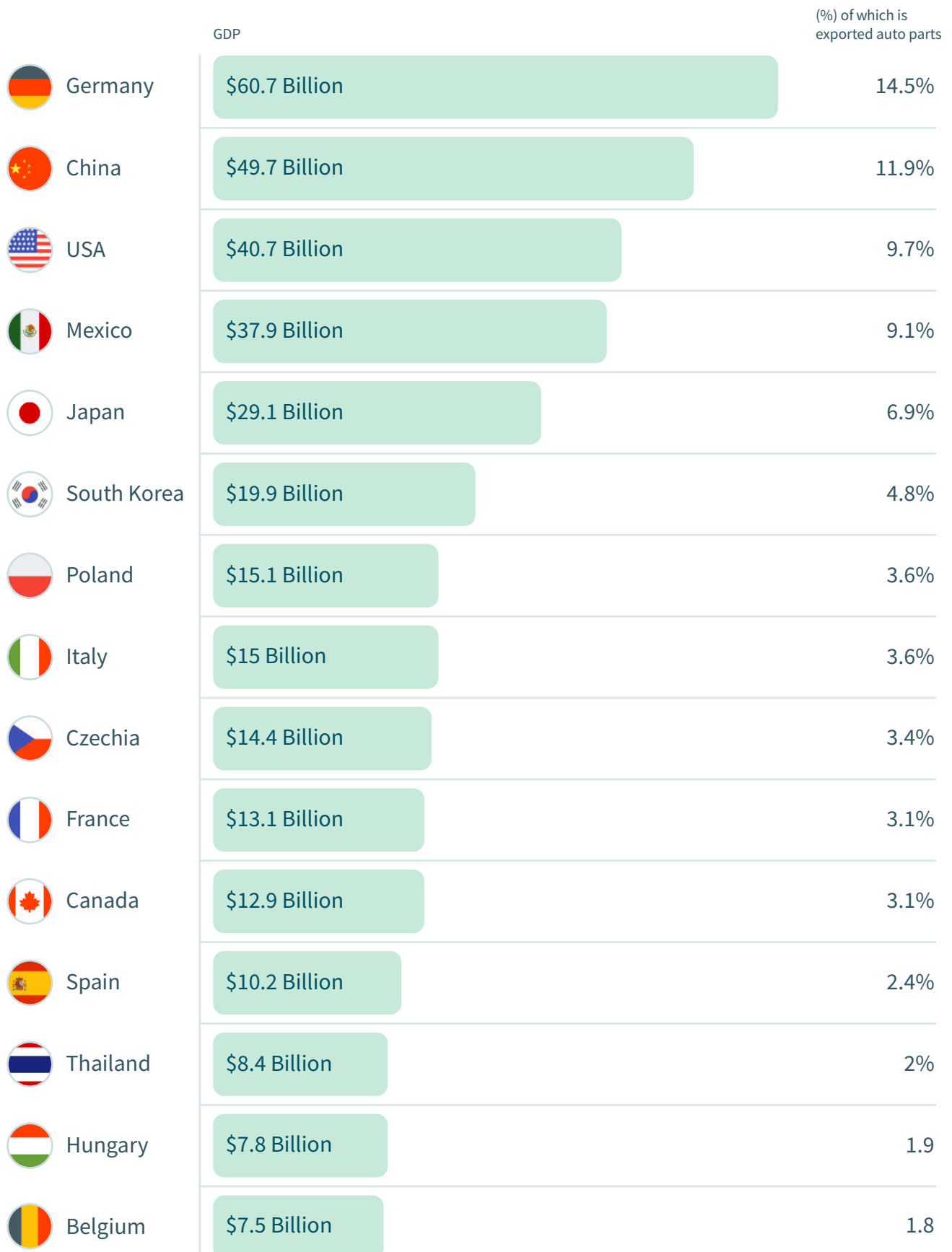
The international standard used in Europe and other parts of the world. Common transactions in the automotive sector under this standard include INVOIC (Invoice), ORDERS (Purchase Order), and DESADV (Advance Ship Notice)



VDA

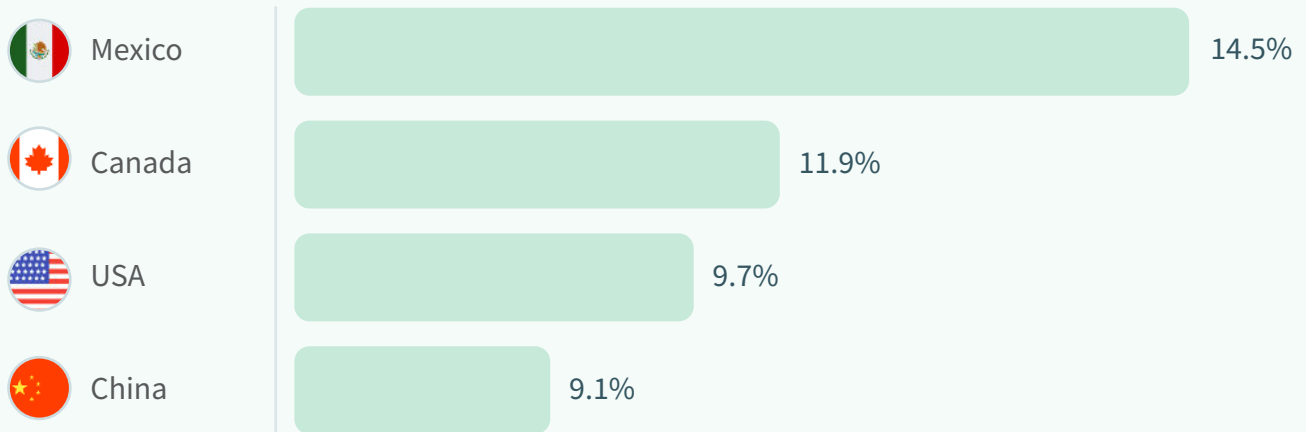
The standard primarily used by automotive companies in Germany. Common transactions in the automotive sector under this standard include VDA 4905 (Invoice), VDA 4913 (Purchase Order), and VDA 4984 (Advance Ship Notice)

The complexity of the automotive supply chain is driven by the international nature of the market in automotive parts. The 15 territories which exported the highest number of automotive parts in terms of value in dollars, in [2022](#), were as follows:

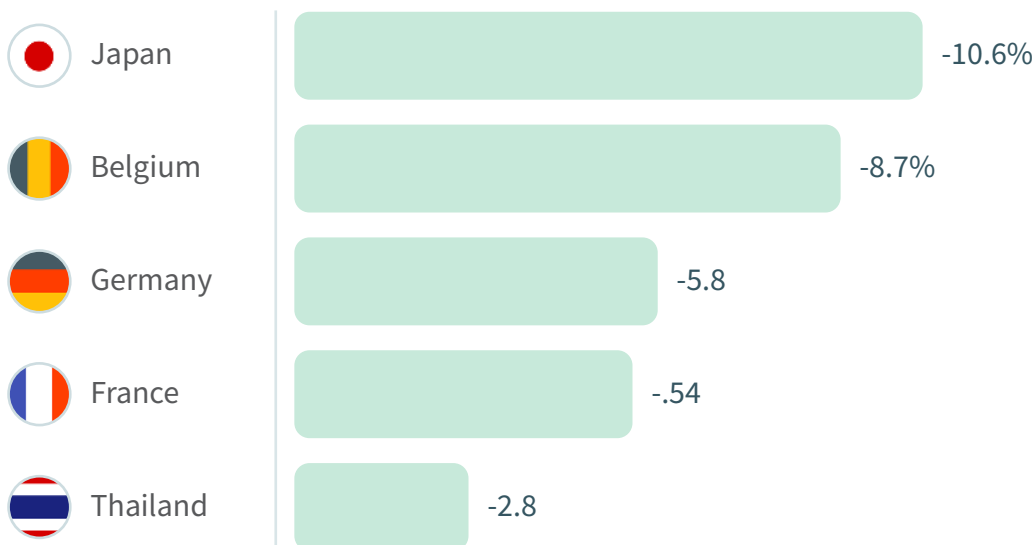


The international nature of the automotive supply chain is compounded by a degree of volatility, with various countries experiencing either an increase or decrease in their market share over the 12 months between 2021 and 2022.

The fastest-growing exporters of automotive parts were as follows:



Countries which saw a decline in the export of automotive parts included:



Key takeaways and strategies for your business

- EDI offers a valuable degree of consistency within a supply chain landscape that's constantly shifting.
- Using EDI will enable you to plan for the future with a degree of certainty no matter how volatile external forces become.

How Data Interchange can help

As volatility increases and OEMs place greater demands on all tiers of suppliers — centring on resilience and sustainability — even smaller suppliers previously hesitant about the cost must now embrace EDI technology to remain competitive and responsive.

For Tier 1 suppliers, implementing an on-premises EDI system is often essential for managing just-in-time and just-in-sequence deliveries, while less time-sensitive tasks might be managed via cloud services. Furthermore, OEMs expect Tier 1 suppliers to ensure that their Tier 2 and Tier 3 suppliers also adopt EDI.

Many smaller, n-tier suppliers, with limited IT resources and budgets, may find the costs of setting up EDI daunting. A feasible solution for these suppliers is to adopt cloud-based EDI solutions from providers like Data Interchange. Such solutions not only ease compliance with



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upstream demands but also integrate with existing ERP systems to boost efficiency within the suppliers' operations.

With these EDI systems in place, even the smallest suppliers can contribute to complete transparency along the supply chain, enabling the aggregation of data necessary for optimising delivery, reducing costs, and enhancing overall efficiency while supporting the critical goals of resilience and sustainability.

As the need for EDI permeates the entire automotive supply chain, suppliers of all sizes must adopt these solutions or risk falling behind. The transition to EDI as a standard across the supply chain is inevitable, positioning companies that leverage these technologies to stay ahead in the market.

At Data Interchange, we have factored our decades' worth of expertise and experience into building leading EDI software solutions and managed support services for our array of clients. From ERP integrations to EDI mapping, we offer off-the-shelf solutions as well as customised support tailored to your business.

Curious to know how we can help your business address demands of the automotive market in the coming years? [Book a chat](#) with one of our many experts and we'll be in touch.

Bibliography

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