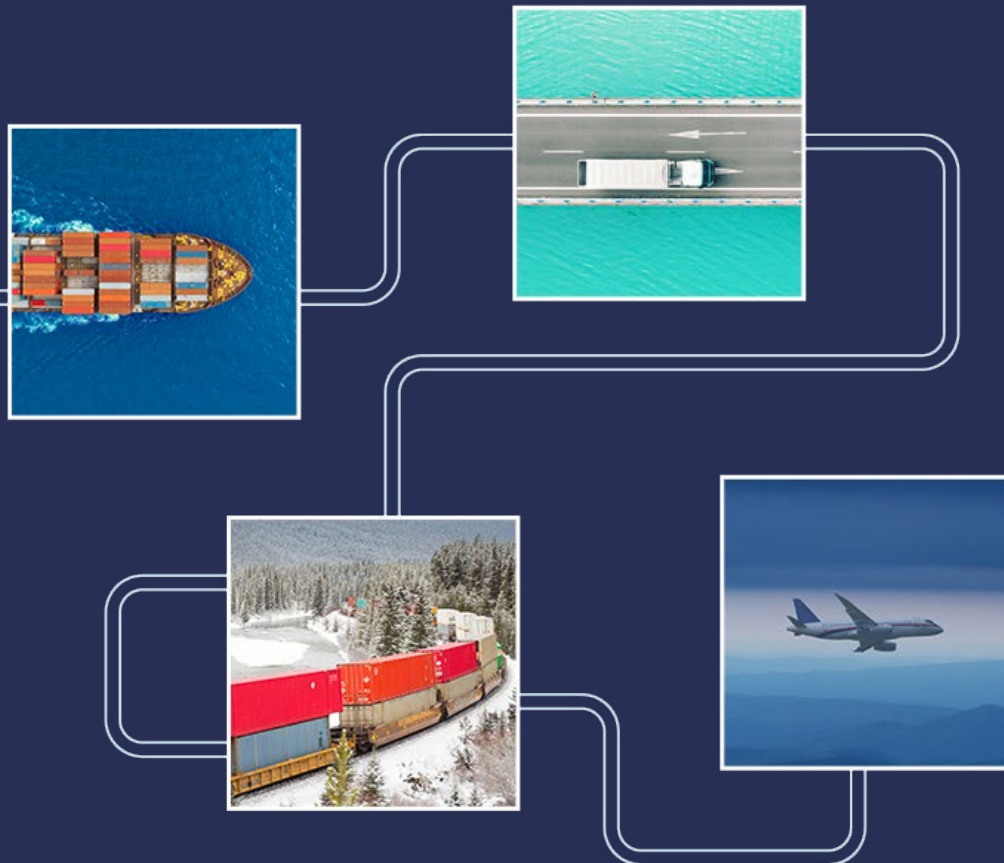


On the move: Rethinking transportation and logistics supply chains

Part 1: Executive summary



01 Executive summary

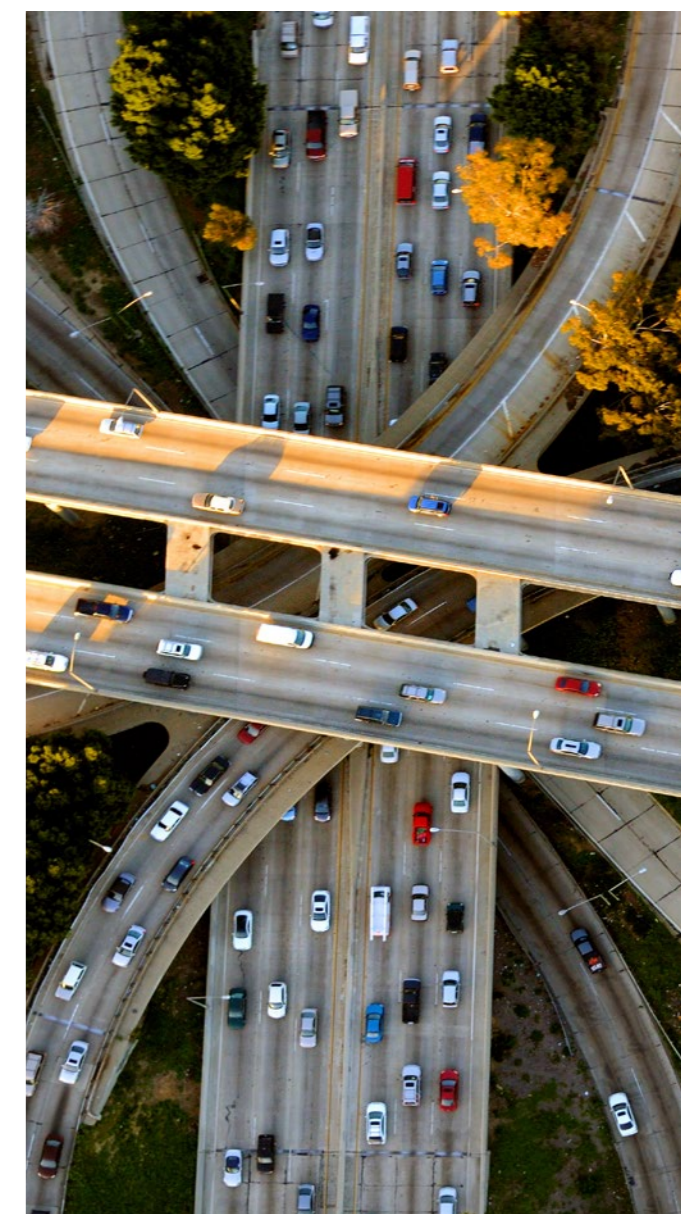
Transportation and logistics connections

The transportation and logistics industry is a key enabler of global growth. Across the world, ships, planes, trucks and trains keep goods on the move, help put the food on our tables and transport semiconductor chip components through their production and assembly stages. The industry has a close connection with the Lloyd's market; Lloyd's was a pioneer of shipping insurance nearly 350 years ago and issued the first ever motor and aviation insurance policies.

Without transportation and logistics, the world's supply chains would grind to a halt. We have felt the impacts of this all too recently, during the COVID-19 pandemic and when a single massive containership blocking the Suez Canal was enough to hold up \$9.6bn of global trade every day¹. The current market value for the sector is circa \$9.66trn, and the industry supports \$89trn of global GDP.

As the transportation and logistics industry has grown in scale, shape and complexity, the associated risks to businesses' supply chains have also increased. In 1956, Malcolm McLean created ripples in the cargo shipping industry by introducing the idea of stacking hundreds of containerised cargo boxes for easy loading and unloading. 66 years later the largest container ship in the world – the MSC Irina – can store 24,346 containers¹. MSC Irina is also the first of six new vessels with unique design elements to decrease the consumption of fuel and hybrid scrubbers that are expected to decrease carbon dioxide emissions by 3 to 4%².

The transportation and logistics sector has been famously resilient for being able to switch from one mode to another to keep goods on the move, but any disruption has vast ripple effects on all sectors of the economy. Talent shortages, the implementation of green technologies, climate risks such as changing river levels and heatwaves causing go-slows, rising instances of fires from batteries and the aggregation of goods in mega-warehouses all threaten the sector's - and by extension - global economic resilience. As the sector looks to decarbonise, meet consumer demand through last mile delivery, and connect emerging markets to global trade, businesses and governments around the world are reconsidering how they move and store goods between their supply chain nodes and looking to logistics providers to help them improve and optimise.

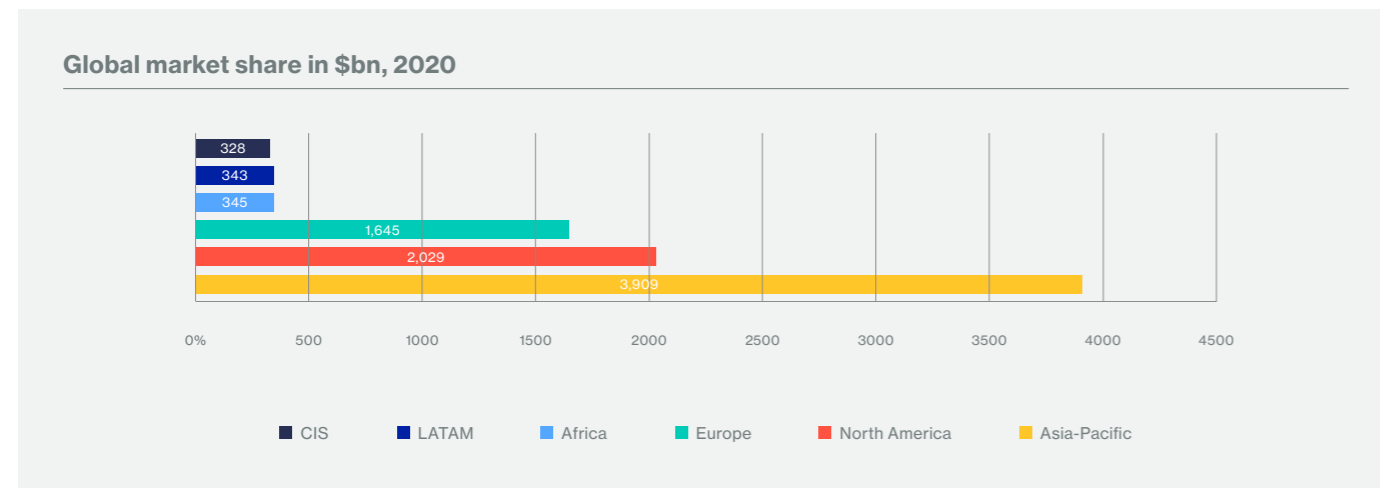


¹ As of May 2023. The standard container size is 20 feet long, eight feet wide and nine feet tall – a size that's become known as a "Twenty-foot Equivalent Unit" or TEU.

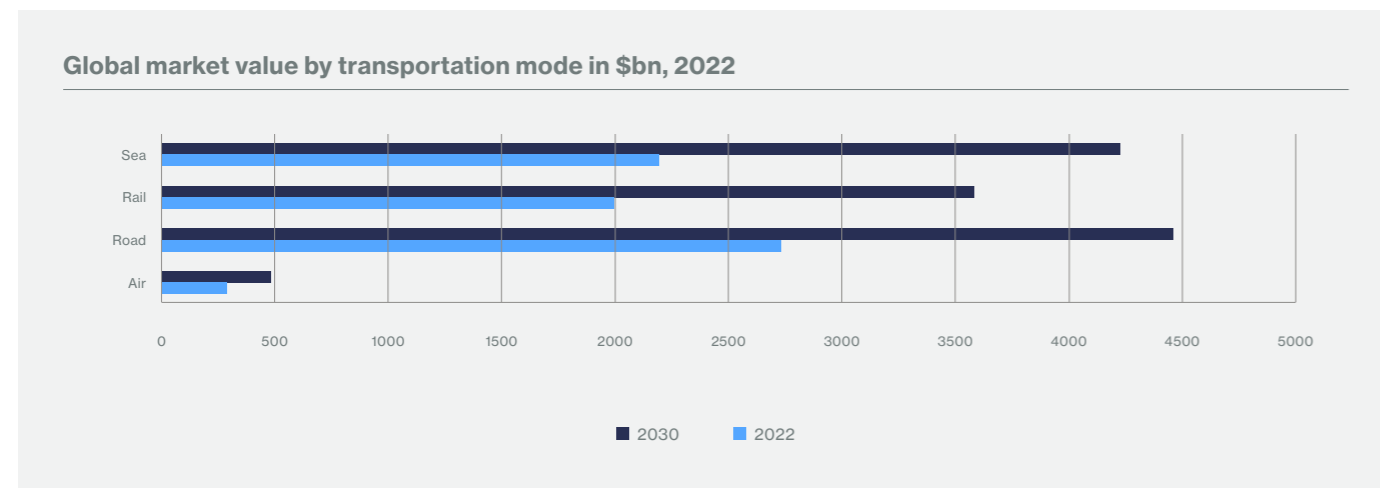
Understanding market dynamics

Transport and logistics companies offer a global network of connections and capabilities depending on the routes and speeds needed. Economies of scale and efficiencies have enabled the rapid globalisation of supply chains over the last 30 years and between 1950 and 2020 world trade volumes have grown by an estimated 4,100%³. Industry research forecasts that the global transportation and logistics market may reach \$13.77trn by 2028⁴, equivalent to a compound annual growth rate (CAGR) of 6.23%. In the short-term, the conflict in Ukraine, inflation, and fears of a global recession threaten a slowdown in the performance of many companies and the associated logistics market. Looking forwards, the transport sector will play a significant role in increasing access to opportunities and is a crucial enabler for the 2030 Agenda for Sustainable Development⁵.

Figure 1: Understanding market dynamics⁶



Note: Commonwealth of Independent States (CIS) countries engage in political, economic, trade, and cultural cooperation; they share a free trade area and a visa-free regime. They include: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, and Uzbekistan⁷



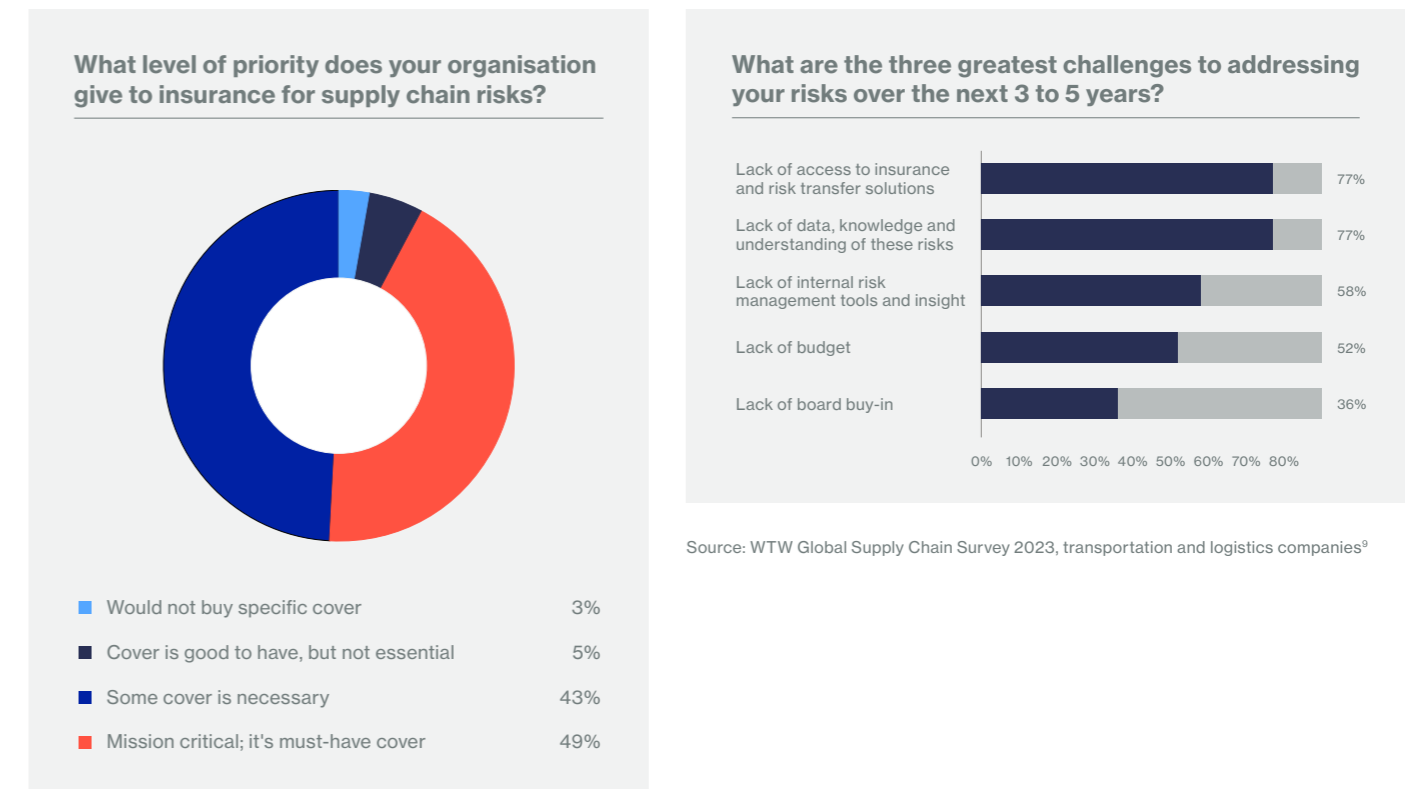
Source: Market research reports⁸

Keeping goods on the move

Transportation and logistics companies have always been at the sharp end of supply chain risk and respond to operational events and balancing capacity every day. They take risk seriously: investing time in planning through redundancy, ensuring they have robust contingencies in place, sharing resources and building partnerships within the industry, and in the last decade embracing technology to support operational efficiencies. Of the three sectors we have reviewed as part of our 'Rethinking supply chains' series, transportation and logistics companies have some of the deepest and most integrated technology solutions.

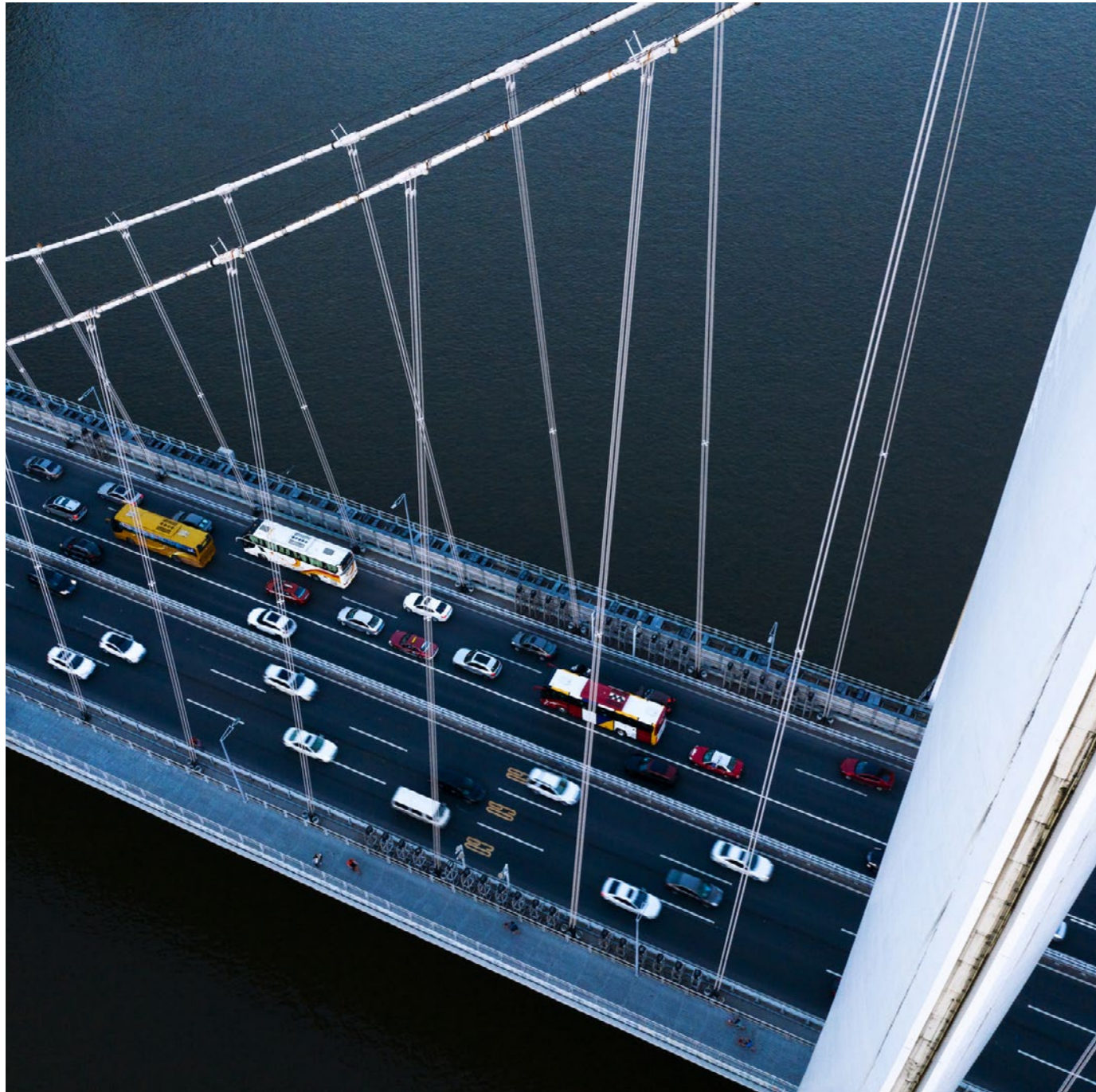
Of the transportation and logistics companies surveyed in [WTW's Global Supply Chain Survey](#), 54% said they had either completely overhauled or made significant changes to their supply chain in the last two years to manage the risks that they face and 64% said they would be making significant changes in the next 12 months. There is also recognition that they can do more, and interest in working with the insurance industry to act on this. 92% of transportation and logistics companies surveyed said that insurance for supply chain risks was either mission critical or necessary, and 60% shared that supply chain risks were covered by specific insurance cover. Looking forward, 77% said that a lack of insurance solutions was among the greatest challenges to addressing their risks, providing a clear signal to the insurance industry that the sector is a willing partner looking to explore new solutions to meet future challenges with risk transfer.

Figure 2: WTW Global Supply Chain Survey 2023 – transportation and logistics companies



Source: WTW Global Supply Chain Survey 2023, transportation and logistics companies⁹

Transportation and logistics businesses are not alone in investing in supply chains. Governments, financial institutions and industry regulators are actively working towards transitioning to a low carbon economy, assessing national vulnerabilities and resilience of critical supply chains, with an example of this being the World Bank announcing a \$50m project to repair and restore Ukraine's transport network to support immediate humanitarian relief and recovery, and increase capacity of import and export corridors, with additional funding of up to \$535m expected to follow. Building on this, the Repairing Essential Logistics Infrastructure and Network Connectivity (RELINC) Project will help to restore essential bridges and railways to relink communities and improve westward transport linkages to mitigate impacts of Black Sea shipping disruptions¹⁰. Organisations leading these and other similar supply chain transformations are likely to seek partnerships with the insurance industry to help manage the complex risks associated with their delivery and de-risk their investments.



This report, created in collaboration with global broker WTW, highlights three key findings that could help increase awareness, availability, and uptake of supply chain insurance in the transportation and logistics industry:

1. A risk aware industry with a desire to do more

All transportation and logistics companies take risk very seriously given the impacts of disruption on their ability to keep goods on the move, with strong levels of business continuity planning and options to switch modes to get around a road or rail closure. There is a rising awareness of risk and growing complexity as companies acquire different modes to gain greater control over delivery and inherit their risk landscape and regulatory responsibilities. Companies are increasingly realising that their supply chains can create a competitive advantage and are not simply a target for cost efficiencies.

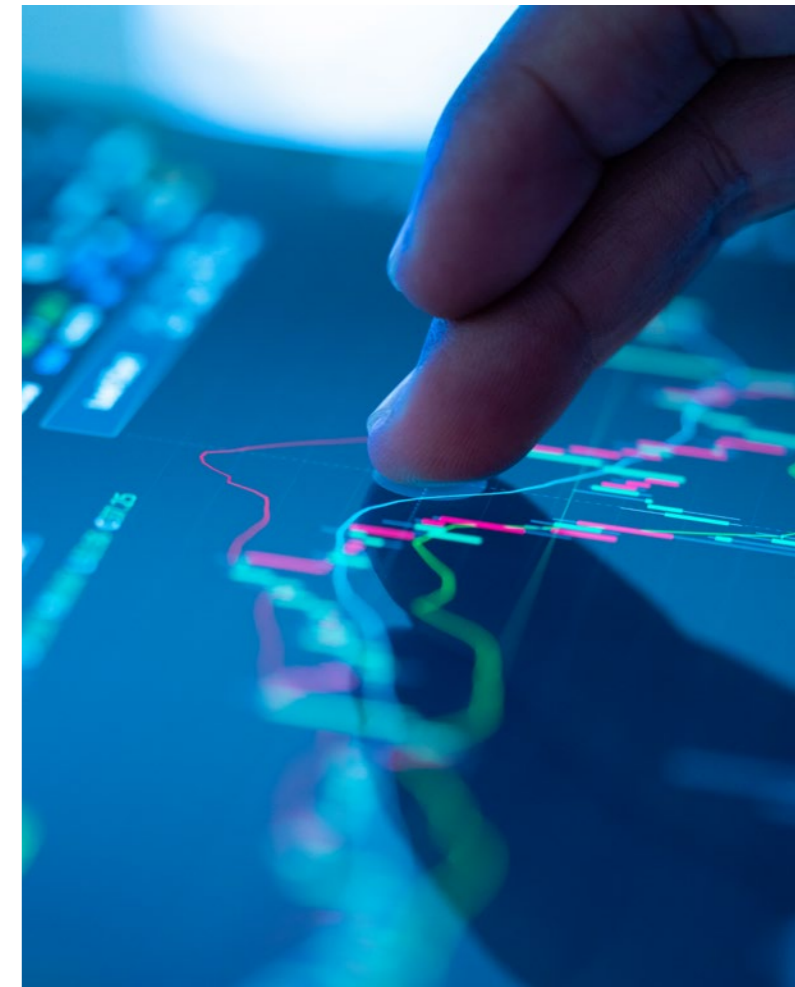
That being said, there was a range of risk maturity seen across the companies we spoke with – some very advanced in their journeys and others knowing they need to catch up. Interestingly the majority of conversations started with “I’m not an expert on supply chain” and yet these same companies demonstrated deep understanding of the risks that they face. There was also a range of understanding of supplier resilience, ranging from high level information only to progressive part sharing warehouses with competitors to pool resources.

As well as acquisitions and partnerships with the companies they move goods for, transportation and logistics are increasingly partnering with third parties to provide new data sources in the face of ongoing global change and have been building their own systems. Importantly, this includes gaining better visibility of their transportation network – the exposures every other industry has to face – and integrating their systems with others for operational efficiency. These puzzle pieces are coming together and can support insurers to build a more detailed picture of global supply chain exposures regardless of the sector. Transportation and logistics companies are moving the world's goods.

There are six key supply chain risks and drivers currently on the minds of transportation and logistics businesses:

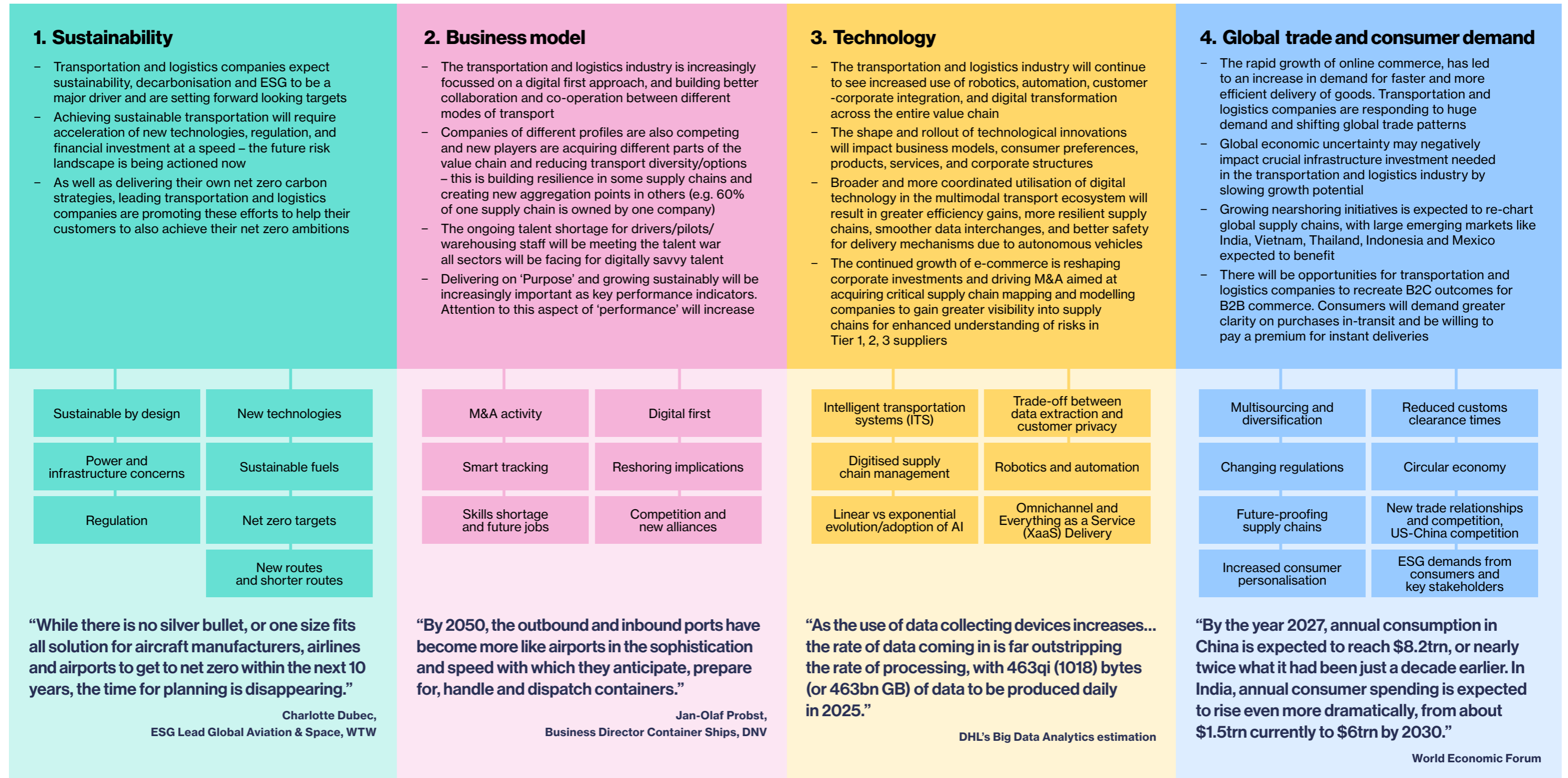
- Sustainability, decarbonisation and environmental, social and governance (ESG)
- Technology
- Labour
- Business model
- Regulation
- Global trade, geopolitics and geoeconomic risk

While risk maturity varied, there was active interest in understanding where insurers' risk-based thinking could support them in their efforts. Cross-sector collaboration and conversations could help drive product innovation and attract more interest from transportation and logistics businesses to purchase insurance solutions that meet their needs most effectively.



As well as the shorter-term risks and drivers facing businesses now, there are four key areas where change is expected to increase over the long term:

Figure 13: A forward look at drivers, trends and risks



Source: DNV¹¹ WEF¹² DHL¹³

2. Product innovation opportunities

Building on the findings of our first two reports, '[From farm to fork: Rethinking food and drink supply chains](#)' and '[Loose connections: Rethinking semiconductor supply chains](#)', there is a significant opportunity for increased collaboration between the transportation and logistics industry and their insurers. Importantly, solutions already exist for supply risks that transportation and logistics companies were not aware of, but also clear gaps where insurers have an opportunity for product innovation to better meet customers' needs.

The transportation and logistics businesses we have spoken to have outlined a series of areas they would like to explore with insurers, ranging from policy wordings to further specified covers:

- End to end supply chain insurance
- Tier 2 and below suppliers
- Insurance that covers transportation mode changesⁱⁱ
- Trade disruption insurance (TDI) for freight forwarders
- Solutions covering new technologies and liabilities
- Business interruption insurance
- Pooling arrangements for key bottlenecks
- Total cost of risk understanding to provide balance sheet protection

The risks and drivers outlined in section two of this report provide a deeper view into the challenges that transportation and logistics businesses are facing and the business risks that these are driving. The final section of the report explores the potential acceleration points that could help manage these risks more effectively: supply chain specific conversations on risk, awareness of existing solutions that cover supply chain risks, closer alignment of market and customer appetite (including risk sharing), reducing the manual burden of information required from customers, and developing new products that can be accurately and sustainably priced. Efforts to address this could help increase the opportunity to develop new targeted supply chain insurance solutions and address the critical protection gaps in the transportation and logistics industry.

ⁱⁱ e.g. the transition between air to road, road to rail, rail to sea etc.

3. A chance for insurers to keep goods on the move

Availability of quality, timely and usable data across supply chains has always been a challenge for both businesses and their insurers, as explored in our first two reports. As digitisation advances, transportation and logistics companies have responded to supply chain events by investing in tools and technology methods, most notably enterprise resource planning (ERP), electronic data interchange (EDI), and application programming interface (API) systems to improve operational efficiency and enhance customer relationships across the entire value chain. This is backed up by the findings in the [2023 WTW Supply Chain Survey](#), which found that 81% of transportation and logistics companies have either identified all the data they require and have robust processes in place to gather it or are establishing those processes now – 11% higher than the semiconductor companies. 57% of those surveyed are developing a detailed understanding of their supplier networks and 48% are improving relationships with suppliers and customers to do that.

These new sources of data could be used by insurers to support product innovation – whether that's designing new products, tailoring existing offerings, or gaining a better understanding of potential areas of concern. Oracle, SAP, Blue Yonder's Luminate Logistics, CH Robinson's Navisphere, project44, and Shippeo provide examples of third parties using technology, risk engineering expertise and insurance to help clients identify, assess, mitigate, and transfer supply chain risks. Section 3 of this report series also outlines areas where new data is being created by industry associations and regulators, where standards are being shaped, and examples of how governments are investing in transportation infrastructure to support national and global resilience.



The role for the global insurance industry

This research outlines the tangible steps insurance and (re)insurance organisations can take to support transportation and logistics companies and their needs; but it is only as effective as its application. The real work will be in converting those insights into action.

An opportunity for the (re)insurance industry to respond

Innovative solutions:

The (re)insurance industry can help to build long-term resilience by deploying its capital to remove risks from customers' balance sheets and reduce their exposure to supply chain risks. The increasing turbulence of the risk landscape and the demand for more bespoke coverages raises expectations of the insurance industry to innovate in the way that it provides services and improve its communication around how existing products can respond to supply chain risks. In some cases those interviewed for this research described perceived product gaps where solutions already existed; however, a series of protection gaps have been identified which insurers could look to address. In some cases further modelling, data partnerships and in-depth conversations with the transportations and logistics industry may be required.

Opportunities for insurance

Raise awareness of existing products	Consider new products in the 'gaps' highlighted by transportation and logistics companies	Identify and share modelling needs
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Collaborative action:

Insurers, brokers and risk management service providers have a unique opportunity to support conversations between insurers and insureds. As an industry built on the principle of bringing teams together to discuss and share risk, opening the dialogue on supply chains and forming new partnerships will allow insurance to respond to a fast-moving landscape. Transportation and logistics companies are acting now, and brave and agile insurers can harness this opportunity. This also extends to exploring public private partnerships as governments around the world look to secure national supply chain resilience and critical transportation and logistics infrastructure.

Opportunities for insurance

Work closely with customers to obtain detailed exposure data and develop capabilities to better quantify supply chain risk	Support governments supply chain resilience efforts through public private partnerships and knowledge sharing
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Explore new data sources and partnerships:

The improved visibility of supply chain related exposures from new data sources will be a key factor in helping insurance play a meaningful role. The transportation and logistics industry recognises that providing insurers with better data and having a more bespoke conversation with insurance partners will be critical to ensuring that their capacity and coverage requirements can be met. This report provides a number of case studies to highlight the type of partnerships which could be brought to bear. In addition, there are further opportunities for the industry to respond to changing customer needs, such as providing business interruption reviews as part of a risk advisory proposition, or geopolitical wargaming scenarios to stress test potential blockages in supply chains.

Opportunities for insurance

Consider how the acceleration case studies outlined in this report could help grow supply chain knowledge, harness customers' existing digitalisation efforts, and complement modelling	Consider investing in capabilities to link supply chain exposure to business interruption modelling	Continued development of proactive risk management solutions
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Provide expert advice:

The insurance industry has an opportunity to actively help customers reduce their supply chain risk. Insurers have a unique opportunity to partner with an industry in that is already exploring its supply chain risks by supporting their risk management planning, mapping and modelling efforts. Entering into dialogue with businesses operating across the transportation and logistics industry can help both insurers and customers better understand the challenges around obtaining specialist insurance cover, and whether cover could be restructured, segmented or consolidated to make it more effective and sustainable.

Opportunities for insurance

Engage with the transportation and logistics industry on risk understanding	Consider new products to address the 'gaps' highlighted by transportation and logistics companies
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Actions that Lloyd's will take

Lloyd's will continue to support innovation around transportation and logistics supply chain protection gaps through convening platforms such as Lloyd's Futureset and the Lloyd's Lab. Through this research, we hope to help businesses and the insurance industry understand how specific risks across transportation and logistics supply chains can be managed, where existing support from the insurance industry is currently available, and where new specialist coverage could be introduced.

Lloyd's is committed to supporting innovation across the market and has set up a number of facilities to ensure that the market has the space needed to innovate or commit capacity to new ventures, including:

- **Lloyd's Lab:** an award-winning space dedicated to accelerating and fostering new products and solutions fit for the needs of our customers around the world
- **Lloyd's Product Launchpad:** providing £150m of capacity, the Lloyd's Product Launchpad is committed to providing a safe space for underwriters to experiment with new ideas in a controlled way, which balances the need for appropriate oversight with the risk of not innovating fast enough
- **Innovation class of business GWP targets:** allowing syndicates to commit an additional 2% of their Gross Written Premium (GWP) from their business as-usual plan to a dedicated innovation class of business

Resilience through knowledge

This report – a collaborative effort between Lloyd's Futureset and WTW – aims to highlight the supply chain challenges facing the transportation and logistics industry and the potential role that insurance industry could play to boost the resilience of a sector that has become essential for keeping global trade on the move. Over the past four months, we have surveyed and interviewed over 179 risk, supply chain, and insurance practitioners.

These perspectives have provided real-life, practical insights into the challenges that companies across the transportation and logistics industry are facing as a result of the highly interconnected world we live in and a reliance on highly specialised models.

In addition to these interviews, we have combined proprietary data and bespoke research with analysis of a wide range of WTW thought leadership and other third-party analysis to develop insights that can help build common understanding between the customers and their insurers to build further insight and resilience into an ever changing, uncertain and complex world.



Supply chain cover does exist today, but it can often be complex to underwrite and costly to buy. Additionally, these products will need significant development to support supply chain resilience against future systemic risks. Having affordable and accessible product and service solutions will be key to instilling confidence in businesses when facing the future. As an industry we need to develop a wider range of solutions that can fulfil this growing need, but to do this we will need the data to understand the complex supply chain networks that exist and the risks to which they are exposed. I see this as a great opportunity for our industry to work with all stakeholders, businesses, and governments around the world, to develop a greater level of certainty on supply chain resilience amid a world filled with challenges.

John Ludlow, Former Airmic CEO, Lloyd's Futureset supply chain masterclass, March 2021²

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