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The state of European supply chains 2023

How inflation, uncertainty, and changing global economic and energy outlooks will shape European supply chains

A Reuters Events Supply Chain white paper in partnership with JLL

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Acknowledgements

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Remo Illi | Head of Regional Supply Chain Management Europe | Sandoz Pharmaceutical AG

Volker Ruegheimer | Head of Group Supply Chain Development, Volkswagen Group After Sales | Volkswagen AG

Foreword

Decision making is becoming more challenging for supply chain managers in today's complex world of heightened geopolitical risk, trade sanctions, high inflation, tight labour markets, energy crises, high financing costs, and weakening consumption.

Rising costs are requiring adjustments to transportation networks, warehouse locations, building characteristics and the amount and type of energy usage. Meanwhile, just as Logistics Service Providers (LSPs) are implementing buffer stock strategies to mitigate disruptions, manufacturers and retailers are planning to reduce inventories to align with expected weakening consumption levels.

JLL and Reuters embarked on a survey of over 170 EMEA supply chain managers to better understand their concerns and what steps they intend to take to address these. The likely result is some reconfiguration of supply chains, including changes in the location and characteristics of industrial and distribution facilities.

This report aims to provide some guidance for companies as to how they can mitigate the impact of rising costs, weakening demand, and a heightened risk of disruption. In addition, we hope it is of interest to investors in industrial and logistics real estate, who would like to know what occupiers are focusing on and the implications for the sector.

We hope you'll enjoy this piece of research and find it helpful in guiding you.

Guy Gueirard,
Global Logistics Business Development & Growth Lead / EMEA Logistics Lead,
JLL

Executive summary

Megatrends for EMEA supply chains in 2023

- The fallout from the Russo-Ukrainian War is the defining issue for Europe's supply chains in 2023, with its inflationary and disruptive effects the critical drivers of decision-making.
- Inflation is pushing organisations to focus on investing in more efficient core operations and reducing energy intensity along all aspects of supply chains. However, there is reticence to scale down operations and significantly draw down inventories given uncertainty.
- Inflationary pressures will continue to work their way through supply chains in the first half of 2023, but weakening global demand for goods, cheaper shipping and a less frenetic market for industrial space should provide relief by H2 2023.

Supply chain risks and disruptions expected in 2023

Inflation dominates the concerns of the supply chains in Europe, the Middle East and Africa (EMEA). A huge amount of that inflationary pressure is a direct result of the conflict in Ukraine, which is seen as the leading disruptive factor supply chains will face in 2023:

- 68% expect the war in Ukraine to disrupt supply chains in 2023, making it the most widespread concern in EMEA.
- This was followed by supply issues increasing energy/fuel costs (66%) and the effect that inflation will have on consumers (55%).
- Other inflationary pressures anticipated to create disruption are labour shortages (54%), input material inflation (36%), and less stability among suppliers as a result of battling rising prices (31%).

Inflationary pressure working its way through supply chains is not over. The overwhelming majority – 81% – of professionals working for Logistics Service Providers (LSPs), manufacturers or retailers in the survey said that they will need to pass on costs to customers this year. However, only 15% said that they expect substantial costs to be added on, indicating that the peak of inflation may have already passed.

Supply chain professionals expect the tide to have turned on port capacity constraints and the fallout from COVID, as these came down the bottom of concerns, being chosen by 18% of respondents in both cases.

A softening global demand picture

The knock-on effect of inflation on consumers is reduced spending power. The balance of respondents said that they expect global demand to weaken, with 45% seeing worsening conditions this year, compared to 22% who see demand improving.

Furthermore, 42% expect a global recession to challenge supply chains in 2023.

Manufacturers and retailers are substantially more optimistic about growth than LSPs, as 42% of the former forecast growth, compared to 22% for the latter.

Asia-Pacific is seen as the regional market expected to generate the most growth by EMEA professionals, with 42% of respondents believing it will grow fastest, compared to 13% who said the same for EMEA.

Firms remain wary of cutting inventory

Even though the balance expect global demand to cool, there is reticence to cut down inventories significantly, as the memory of recent breaks in supply chains remains fresh.

Forty-nine percent see inventories increasing, while 36% expect to cut inventories.

Retailers and manufacturers are more likely to expect inventory drawdowns than LSPs.

Continued buoyancy in warehousing

With warehousing coming off a series of record breaking years, the market will cool in 2023, but the desire to maintain buffer inventory will keep supply constrained.

Forty-four percent anticipate buyers to be chasing warehousing space in 2023 versus 39% who forecast overcapacity. Breaking that down further, 21% expect moderate or severe undercapacity, compared to 13% for moderate or extreme overcapacity.

Ocean freight turns decisively towards oversupply

Shipping, on the other hand, is now well within a phase of overcapacity, putting it firmly into a buyers' market in 2023.

Fifty-eight percent believe there will be overcapacity in the shipping market, compared to 35% who see a lack of container space.

Twice as many see severe or moderate overcapacity than under.

No LSPs in the survey expect balance in supply and demand, and instead 70% expect overcapacity.

Supply chain technology in 2023 zeroes in on understanding and predicting supply chain behaviour

The top supply chain technologies for investment in the coming year are:

- Supply chain monitoring, tracking and visibility solutions - 68%.
- Forecasting - 48%.
- Process automation - 47%.
- Facility automation and robotics - 37%.
- Analytics - 37%.

This underlines the scars of recent experiences and the need to understand and anticipate supply chain disruption, as well as addressing the ongoing issue of low labour availability.

Rising costs drive forward initiatives to use assets more efficiently and cut energy usage

LSPs, retailers and manufacturers are focusing on using assets more efficiently and cutting energy usage in response to the current environment:

- 72% are optimising their transport networks.
- 51% are moving their warehousing closer to transport hubs and end markets, while 46% are refurbishing assets to improve energy efficiency.
- 63% are reducing energy consumption in the production and manufacturing process, and 43% are increasing the share of renewables underpinning that.
- 51% are looking to increase last mile delivery efficiency and 38% are transferring fleets to electric drivetrains.

1
Inflation and conflict dominate supply chain concerns

There is definitive consensus among EMEA supply chain professionals about what concerns them most in 2023: the conflict in Europe and the high inflation that has accompanied it.

In our industry survey the Ukraine crisis and rising prices are dominating the perception of the supply chain environment and are absolutely central to understanding the strategic decisions shaping supply chains this year.

1.1 The fallout of inflation and the Ukraine crisis dominate the outlook for 2023

To borrow a German phrase, this moment is a point of 'Zeitenwende' for the EMEA region, a point of epochal change that dramatically shifts the landscape. This point of inflection has been precipitated by the crisis in Ukraine, which has challenged many long-held policy positions and economic assumptions.

This is expressed clearly in the results of our industry survey, where the fallout from the conflict is expected to be the most disruptive aspect EMEA supply chains will face in 2023. Sixty-eight percent of respondents anticipate their networks being adversely impacted and a further 51% say that geopolitical stability will weigh on logistics over this year.

This should be of no surprise, as the EMEA region is the most exposed to the pullback from Russia and the disruption of exports from Ukraine itself.

The repercussions of the war can then be seen throughout the next most prominent disruptions expected by our respondents, starting with the possibility of energy shortages, particularly diesel, and soaring energy costs (chosen by 66%). As we start the year, **diesel inventories are at post-war lows in the US and multi-year lows in Europe**. These are a direct result of sanctions and uncoupling from Russia, which is one of the

world's largest producers of fossil fuels.

Energy is the fundamental life blood of the entire global economy, and when it becomes dearer, it drives price rises across the entire spectrum of goods. It has therefore impacted prices beyond just the production of energy, with especially deep effects in the EMEA region.

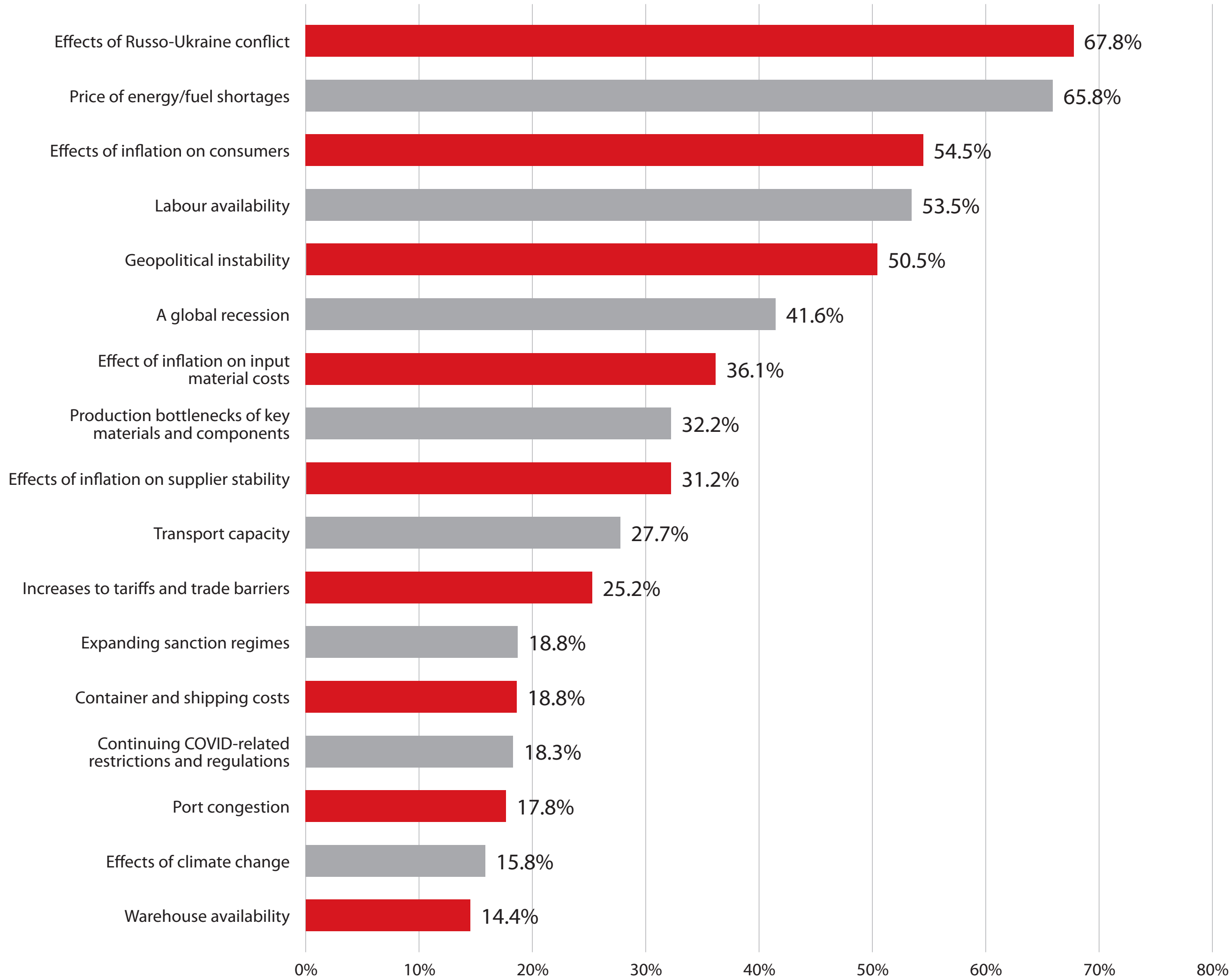
Furthermore, we have seen falling exports of fertiliser, metals and wood to European countries from both Ukraine and Russia due to the conflict.

> Looking at 2020-2022, we have seen an exceptional increase in rental prices for our warehouses. That is not only due to the shortage of available space, but also because of refinancing costs for our providers of new warehouse space, which limits our alternatives with regards to additional warehouse space or new warehouse locations.
>
> **Volker Ruegheimer, Head of Group Supply Chain Development, Volkswagen Group After Sales, Volkswagen AG**

These factors pushed inflation into record territory for the largest economies in Europe during 2022, and the repercussions of that are continuing into 2023.

The top concern from rising prices is how this will impact consumer spending power, cited by 55% of respondents, but 36% also noted increasing input materials costs as an issue and 31% feared that suppliers

Figure 1: Biggest disruptions expected to impact supply chains in 2023



202 respondents

would be less stable as a result of rising costs, underlining how inflation is creating risks along all aspects of supply chains.

On top of this, labour availability remains low, being cited as the fourth most pressing concern at 54%, which means there is little room to try and reduce wage bills or negotiate with service providers to deal with rising overheads.

This inflationary environment has the potential to dampen GDP growth as real terms spending power is undermined due to wages not keeping up with inflation in most countries and interest rates rising to combat inflation. The latter cuts into both corporate and domestic balance sheets, reducing liquidity in the global economy. That environment is why we are seeing a large proportion of respondents - 42% - expect disruption from a global recession this year.

At the other end of the spectrum, it comes across clearly from the survey that the perception of risk from issues relating to COVID is diminished in 2023. COVID restrictions and port congestion - cited by 18% - were both significant issues from 2020 to 2022 but now sit at the bottom of concerns.

China has affirmed its goal to open up its economy and do away with the 'Zero COVID' approach it has hewn to since the start of the pandemic, and global populations have increased immunity steadily throughout the last three years. However, there is a distinct possibility that this risk is underweighted in supply chains.

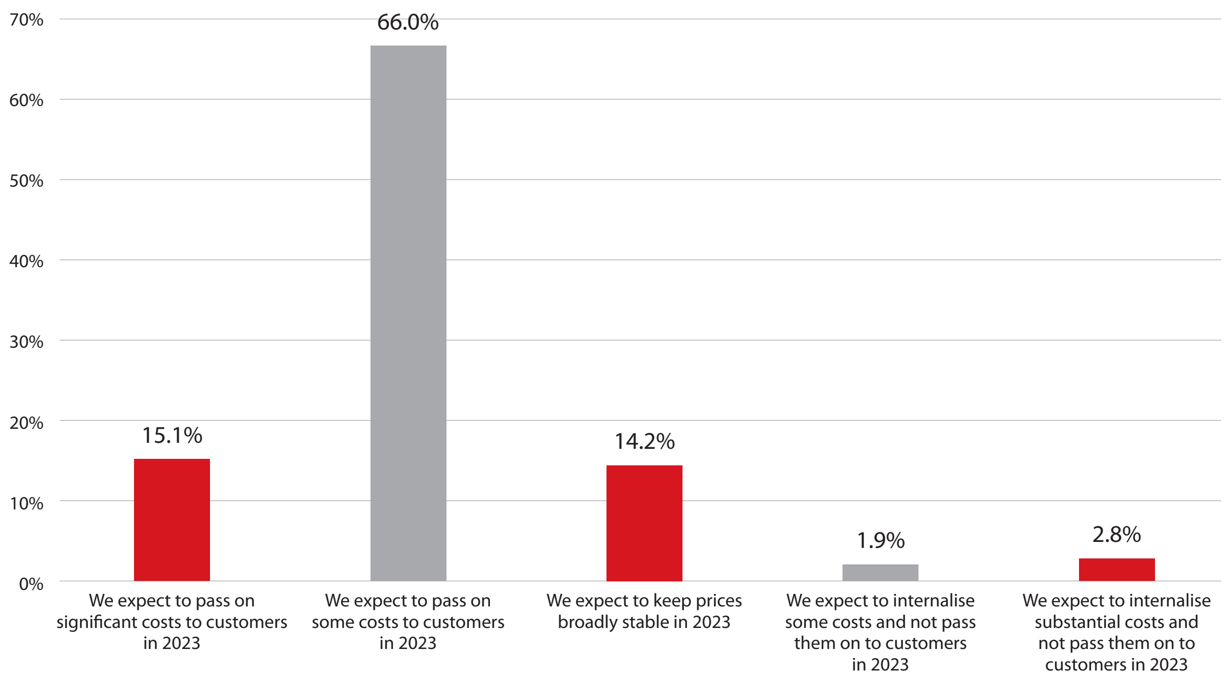
Already, China has been impacted yet again by virulent outbreaks across the country that have cut **factory capacity and created issues at ports**, pushing the **Global Supply Chain Pressure Index (GCSPI) briefly up again in Q4 2022** after trending downwards across that year.

We also continue to see new variants evolve and spread globally, with **many health experts warning that there is no room for complacency**.

1.2 Inflationary pressure is not over, even if it is easing

With inflation such a dominant feature of supply chain planning for 2023, all eyes are on forecasting what direction prices will take.

Figure 2: Further costs are expected to be passed on to consumers



106 respondents - logistics service providers, retailers and manufacturers only

Our results suggest that costs will continue to work their way through supply chains in the coming year, with most companies having already reached the limit at which they are willing, or able, to eat increases in input costs, and instead they are looking to pass them on to customers. This will keep inflationary pressure above the norm experienced over the last three decades and contribute to raised inflation in Europe in 2023, although the upwards pressure will not be as severe from supply chains this year as last.

Across Logistics Service Providers (LSPs), retailers and manufacturers participating in the survey, 81% expressed a plan to pass on costs to customers over the next year compared to just 5% that expected their organisation to internalise costs and not pass them on.

Overall, the majority – 66% – expect to raise prices to a modest degree, compared to 15% that expressed a need to push significant price rises on to customers in 2023. This may be indicating that we have reached the peak of inflation or are nearing it as we open 2023, which should provide some relief to companies across the EMEA region.

> While pretty much everyone has been hit by the unprecedented recent levels of inflation and rising input costs, the impact on the generic medicines industry has been severe. This is particularly so for the energy-intensive mass production of critical antibiotics, as price regulation in many markets prevents companies passing on even part of the additional cost to consumers.
>
> **Remo Illi, Head of Regional Supply Chain Management Europe, Sandoz Pharmaceutical AG**

The rate of increase in several major European economies, including France and Germany, fell to end the year. Furthermore, input material prices and global shipping rates have been trending downwards and a mild winter has eased pressure on European gas markets. While the **Q3 2022 European Road Freight Rates**

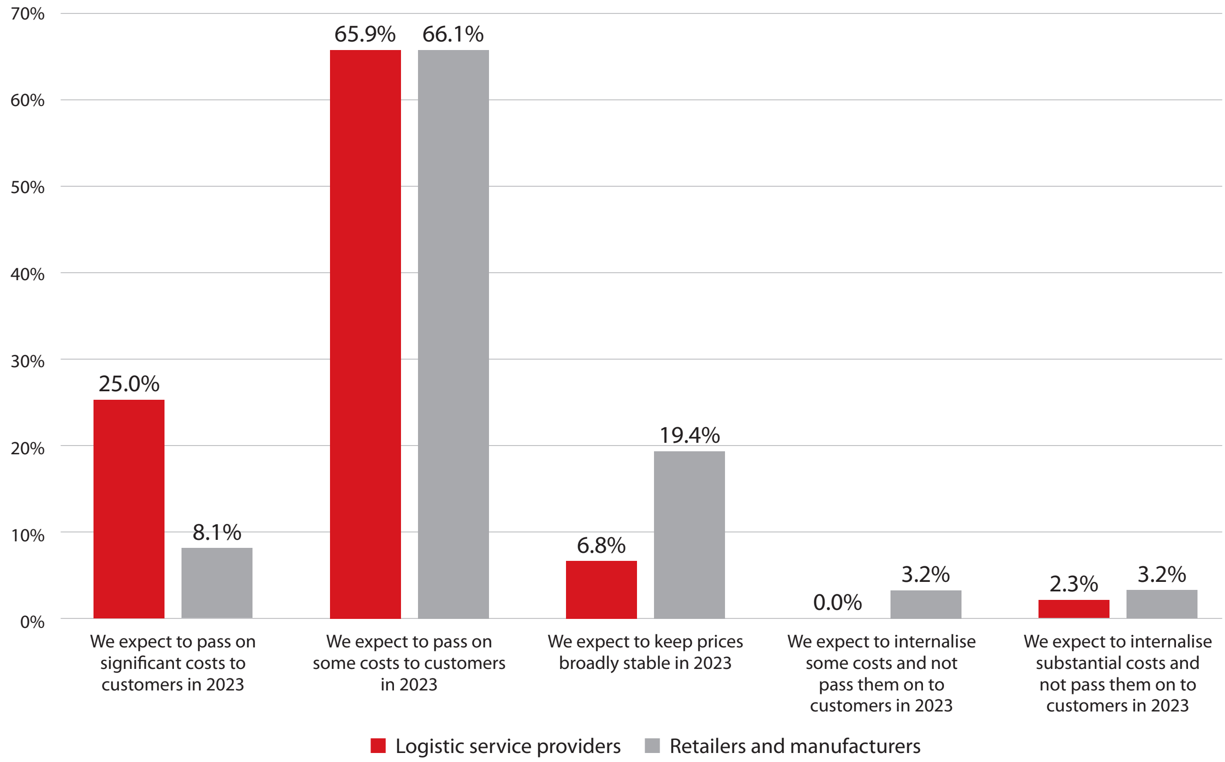
Benchmark Report noted that European road freight contracts reached their highest all-time point since they began measurement, they also noted that those rates faced a downward trend going forward.

> After all, it has been decades since inflation reared its head in Europe. Increased costs due to inflation tend to have a cumulative effect on the supply chain and if you have a business exposed to these increases then you want to quickly understand the impact and have response plans ready that allows appropriate strategies to be put in place to strengthen resilience.
>
> **Volker Ruegheimer, Head of Group Supply Chain Development, Volkswagen Group After Sales, Volkswagen AG**

Nonetheless, inflation is not suddenly going to crash back down to what central banks would consider normal in the first half of this year at the very least. This is especially so if price increases continue to work their way through supply chains, as this data would suggest.

> One of the themes that we see for this year as inflation goes on falling is more predictability about prices and so less volatility. It also means that the central banks' rate tightening cycle will start to ease, and we can see it peaking and then potentially even starting to fall come the end of the year or early 2024, so you've got more predictability about interest and debt costs. Although there is clearly the negative impact of these two factors weighing on economic growth for most of Europe. It does look like we're at least halfway through any recession, and as we start to come out in Q2, the outlook will be improving.
>
> **David Rea, Chief Economist EMEA, JLL**

Figure 3: Logistics service providers expect to pass on more costs than retailers and manufacturers



106 respondents - logistics service providers, retailers and manufacturers only

Breaking out LSPs against manufacturers and retailers, there is obvious strategic divide, with manufacturers and retailers keener to battle rising costs, but LSPs more set on passing costs down to customers. While 25% of LSPs expect to increase prices significantly, a much lower 8% of retailers and manufacturers say the same. A quarter of the latter are aiming to keep prices stable or to reduce them, compared to 9% of LSPs.

This suggests that a good deal of the inflationary pressure in the supply chain will come directly from the logistics network itself. Core drivers for this price movement are the limited labour pool LSPs can draw on for more warehousing workers and truck drivers (see Section 3.2. for more), continuing relatively high costs for fuel, and persistent demand for industrial space, even as demand looks less robust (see Section 2.3 for more).

That cost base for LSPs means retailers and manufacturers may be overoptimistic, with pressure coming down the pipeline from their logistics partners and contracted rates for transport and warehousing remaining sticky through 2023.

> There is a good argument that Europe is working to wean itself off Russian energy and the longer time goes on, the more progress there will be, the better the backup systems will be, the more alternate suppliers will be found.
>
> **David Rea, Chief Economist EMEA, JLL**

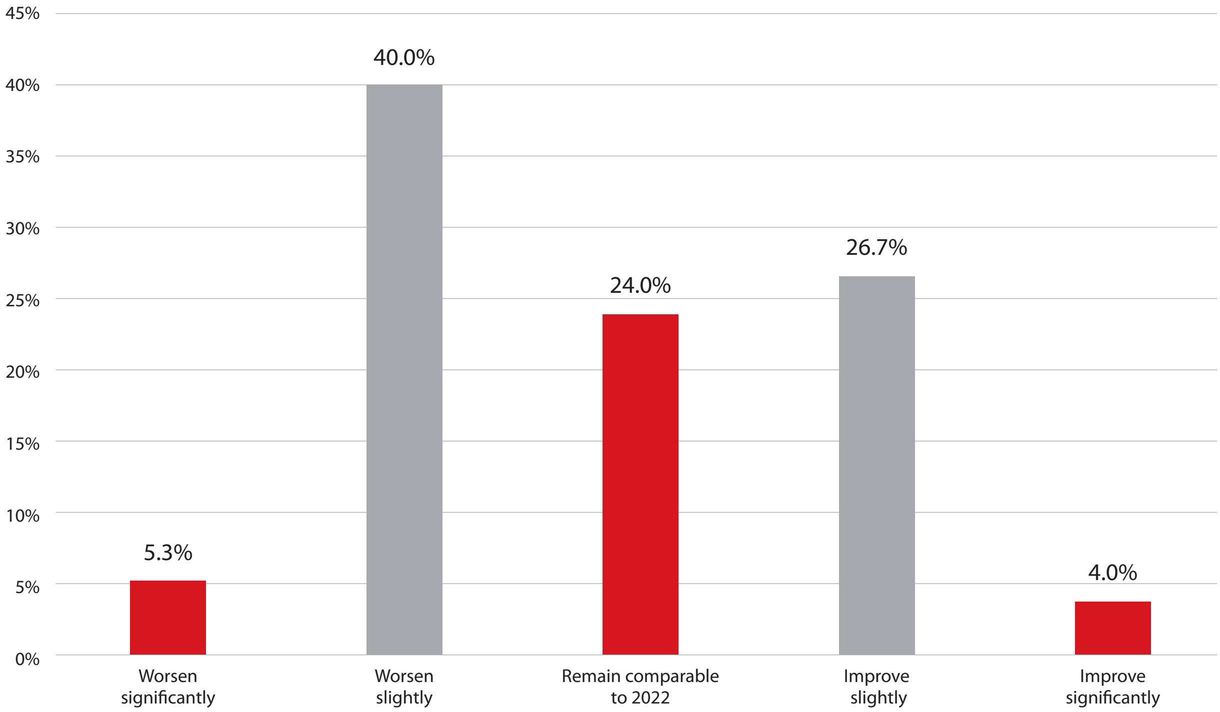
2
A softer demand picture and continued weakness in shipping rates, but the need for industrial space remains

During the pandemic, and immediately after, demand for physical goods soared to unprecedented levels, but the reopening of economies turned the tide on this massive trend. With the global economy expected to be weaker this year than last, what are expectations for global growth among supply chain professionals and how will this feed through into inventory stockpiling and shipping?

2.1 The demand outlook

As noted in the previous chapter, there is substantial risk of a global recession occurring in 2023, and concerns abound over the disruption this could bring.

Figure 4: Global demand cools in 2023



225 respondents

While global economic performance data has exceeded analyst expectations and does appear to be improving at the start of this year, the overall balance of expectations is for the global market for goods to trend to lower volumes of production and trade. The net balance among respondents for those expecting growth versus those expecting contraction is -15%, with 31% anticipating demand to improve and 45% forecasting it to worsen. Just under a quarter expect stability.

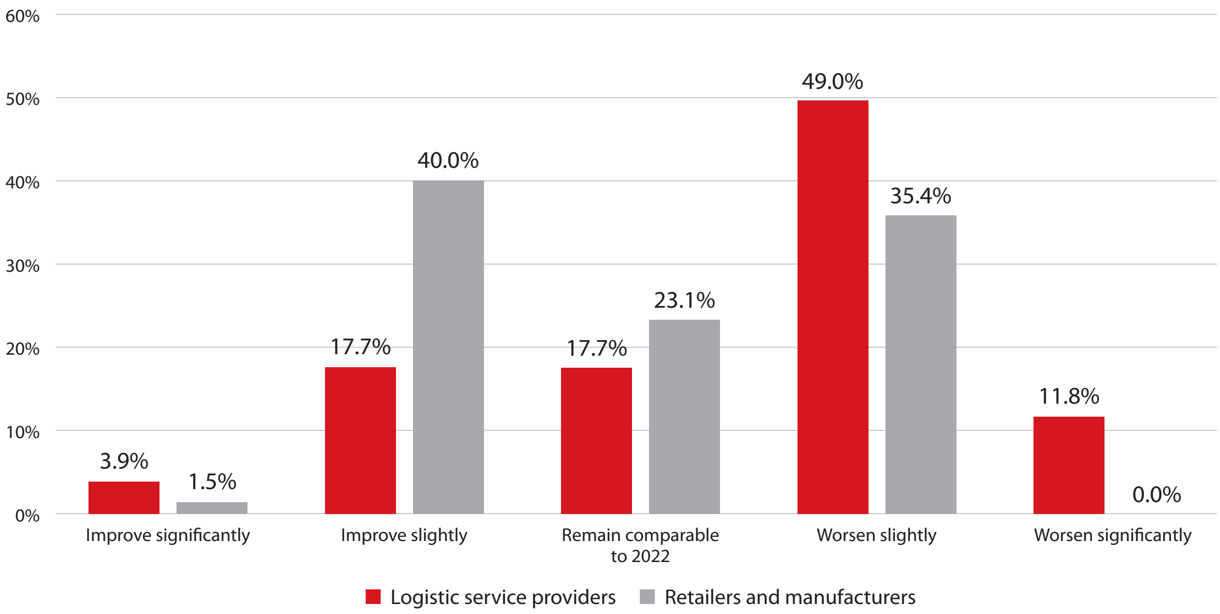
There are relatively few that expect these swings to be dramatic, with 5% predicting significantly worse conditions and 4% looking forward to a significantly improved outlook.

This fits with the overarching economic outlook that appears to be heading towards a year of extremely tentative overall economic growth, but with weaknesses in the global trade of physical goods.

GDP growth for Q4 in **China** and **the US** came in above expectations and **Eurozone Purchase Manager Indices** have headed back into growth territory to open the year, which are positive developments that have led to some growth upgrades among analysts for 2023. However, **global factory activity** has been weak to end 2022, and **imports into the US returned to pre-pandemic territory**.

> Household incomes are still going up. However, a greater share of that disposable income is being diverted to pay for energy, food and the essentials, and less for the non-essentials, which make up the remainder of consumer spending.
>
> I think you've got short term pressure while we're in this period of heightened inflation that poses a negative cyclical element for goods demand, but it's not amplifying any structural elements, so it should be relatively short term.
>
> **David Rea, Chief Economist EMEA, JLL**

Figure 5: Retailers and manufacturers more optimistic about demand outlook



116 respondents - logistics service providers, retailers and manufacturers only

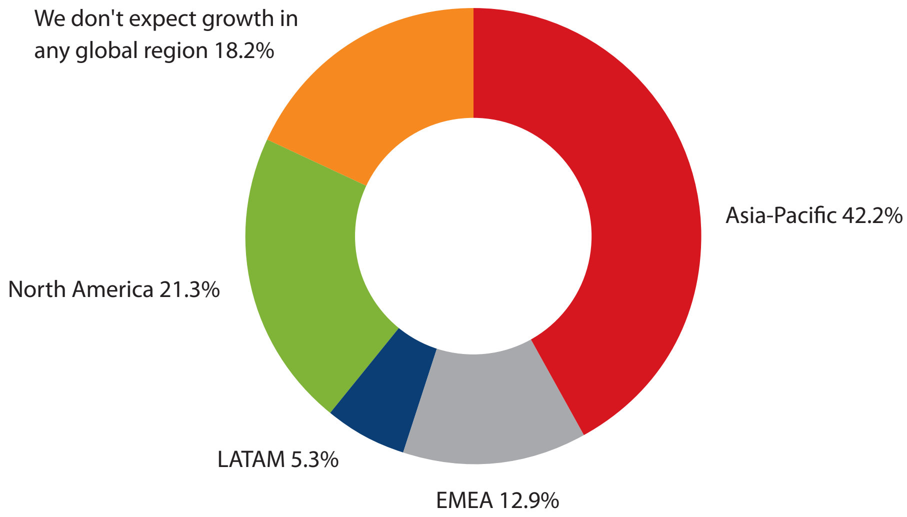
Retailers and manufacturers are noticeably more optimistic about prospects in 2023 compared to LSPs, with no respondents in this group expecting the global markets for goods to worsen significantly and a net share expecting growth, with 42% optimistic, versus 35% who forecast contraction.

LSPs, on the other hand, are net pessimistic, with 61% anticipating a fall in demand versus 22% who see expansion.

This is likely driven by China's reopening and **better than expected sales data in the Eurozone** feeding hope among retailers and manufacturers, while LSPs are contending with a rapidly softening market for shipping.

That aforementioned reopening is boosting Asia-Pacific in the opinions of EMEA supply chain professionals as they anticipate the region will have the year's highest growth rates. In the survey 42% believe that the region will be the fastest growing, compared to just 13% who think it will be EMEA that leads the way.

Figure 6: Asia-Pacific leads growth expectations despite the shadow of COVID



225 respondents

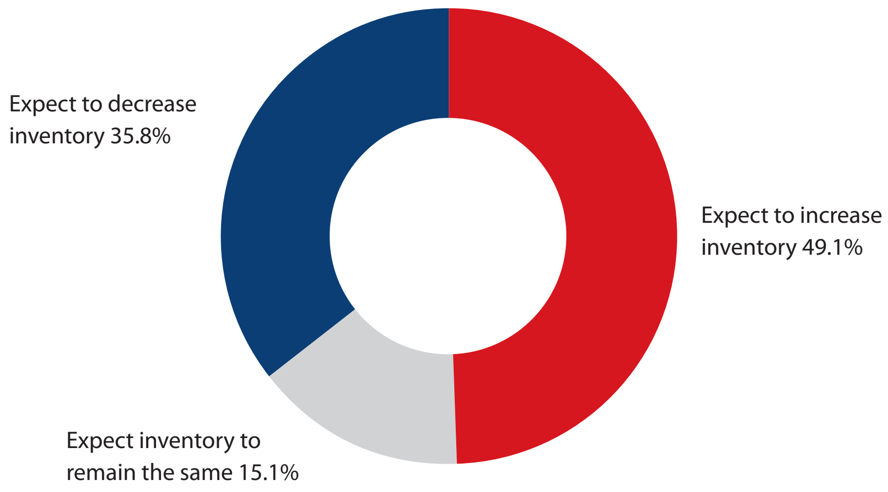
However, coming back to those concerns regarding a global recession, nearly a fifth – 18% – said that they don't expect growth in any global region in 2023, so there is considerable caution out there in supply chains as we open 2023.

2.2 The inventory outlook

There is also a cautious outlook when it comes to inventory. Despite much of the EMEA supply chain sector feeling concerned about the prospects of a global recession, there is reticence to run down inventory in an aggressive manner.

A net balance of manufacturers, retailers and LSPs said that they expect inventory levels held by their organisation to increase in 2023. Overall, 13% more respondents from these company types projected building inventories rather than chipping away at them.

Figure 7: Inventories expand, despite softening demand

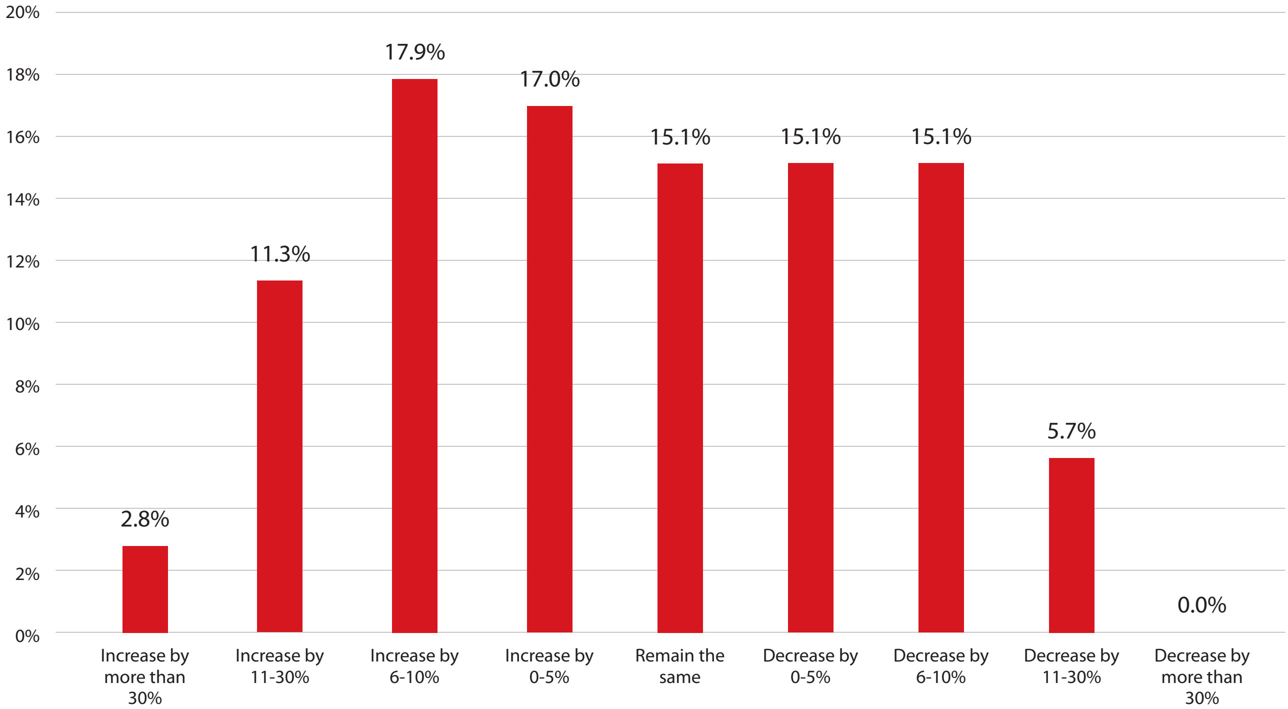


106 respondents - logistics service providers, retailers and manufacturers only

Taking a more granular look at this data, that lean towards increasing inventories becomes more pronounced.

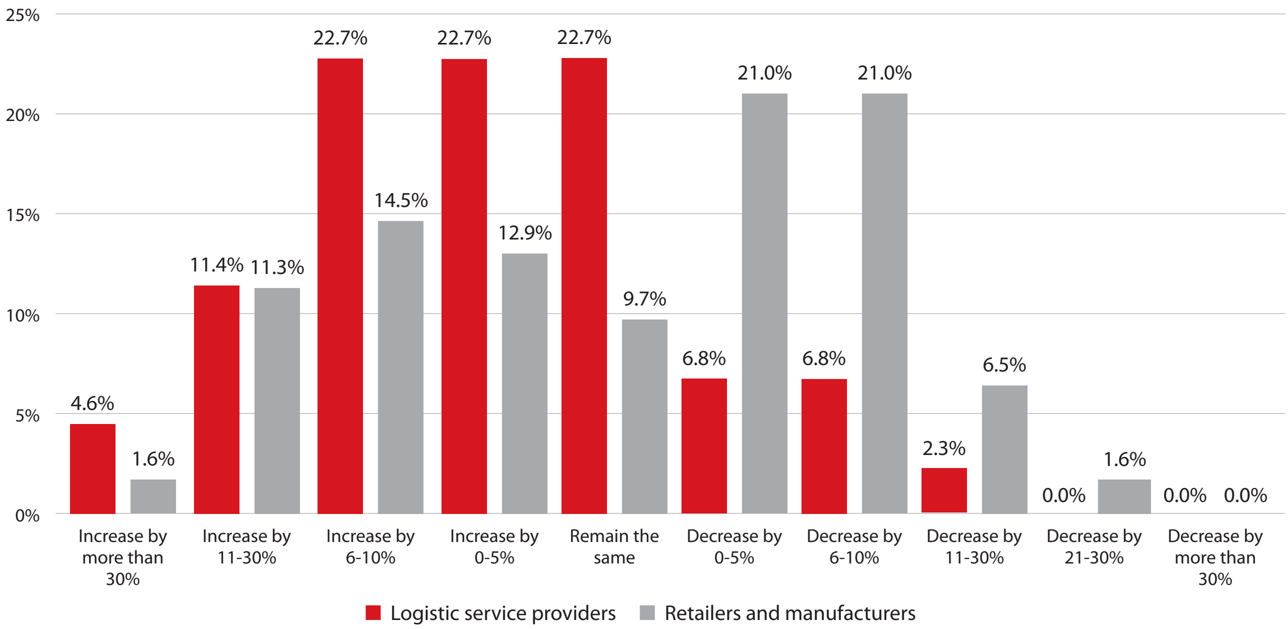
While no one in the survey population said that they expect to decrease inventories by more than 30%, 3% said they were anticipating growing inventories by more than 30%. Likewise, 14% expect to increase inventories by double digits compared to 5% planning to reduce stock by 11% or more.

Figure 8: Inventory growth is positive as companies look to safeguard capacity



106 respondents - logistics service providers, retailers and manufacturers only

Figure 9: Split in inventory outlook between logistics service providers and retailers and manufacturers



106 respondents - logistics service providers, retailers and manufacturers only

Splitting out LSPs from retailers and manufacturers we can once again see that there is a division in outlook for the coming year.

While LSPs see inventories going up over the coming year, retailers and manufacturers are considerably more interested in trimming their stocks. Among the former, 61% are predicting that the inventories they hold on behalf of customers are going to increase, while 40% of retailers and manufacturers think the same.

> We have learned some valuable lessons from the COVID experience and the unprecedented swings in demand and supply levels. As a result, we have reviewed our stock policy and made adjustments where necessary. However, the world has not stood still in the meantime, and we increasingly need to plan for many potential scenarios. While we do now have enough inventory in the network, including our affiliates, I would still like to see higher stock coverage in many countries.
>
> **Remo Illi, Head of Regional Supply Chain Management Europe, Sandoz Pharmaceutical AG**

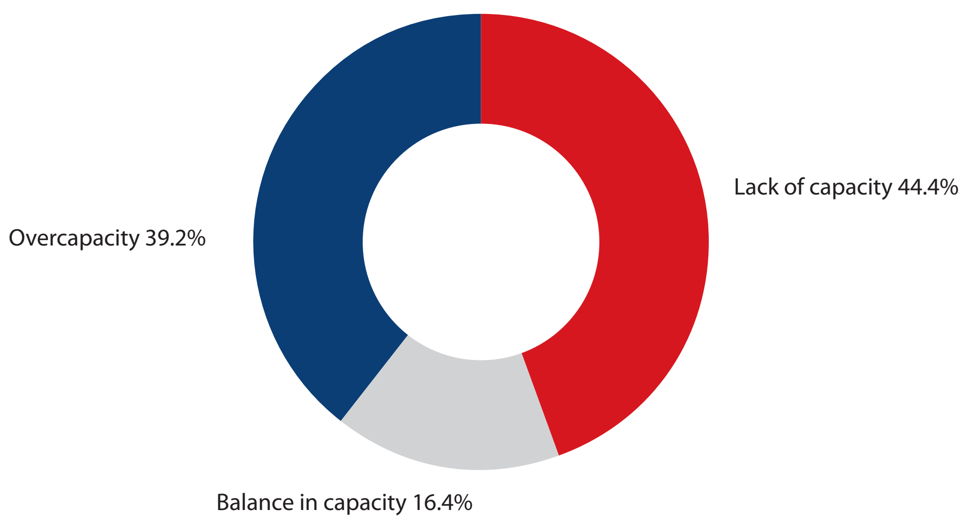
The surprising robustness in inventory expectations in the EMEA region is likely to reflect the fact that high levels of disruption are not yet considered over, and supply chain managers are reticent to reduce inventories dramatically even as they stare down a slower global economy for goods. Instead, there is a preference to maintain buffer stock so as not to be caught out. The primary beneficiaries of this are LSPs, who have more flexibility on this front and likely are being used to hold stocks unsold in a **relatively weak end to 2022** for retailers. As 2023 progresses, we can expect retailers to run down excess inventory, but more rebalancing from manufacturers if economic data continues to trend in a positive direction.

2.3 The industrial space outlook

With inventory holdings proving surprisingly robust, it comes a no surprise that European industrial space continues its hot streak as we head into 2023, but we are beginning to see a moderation in the market and expectations of a more balanced space.

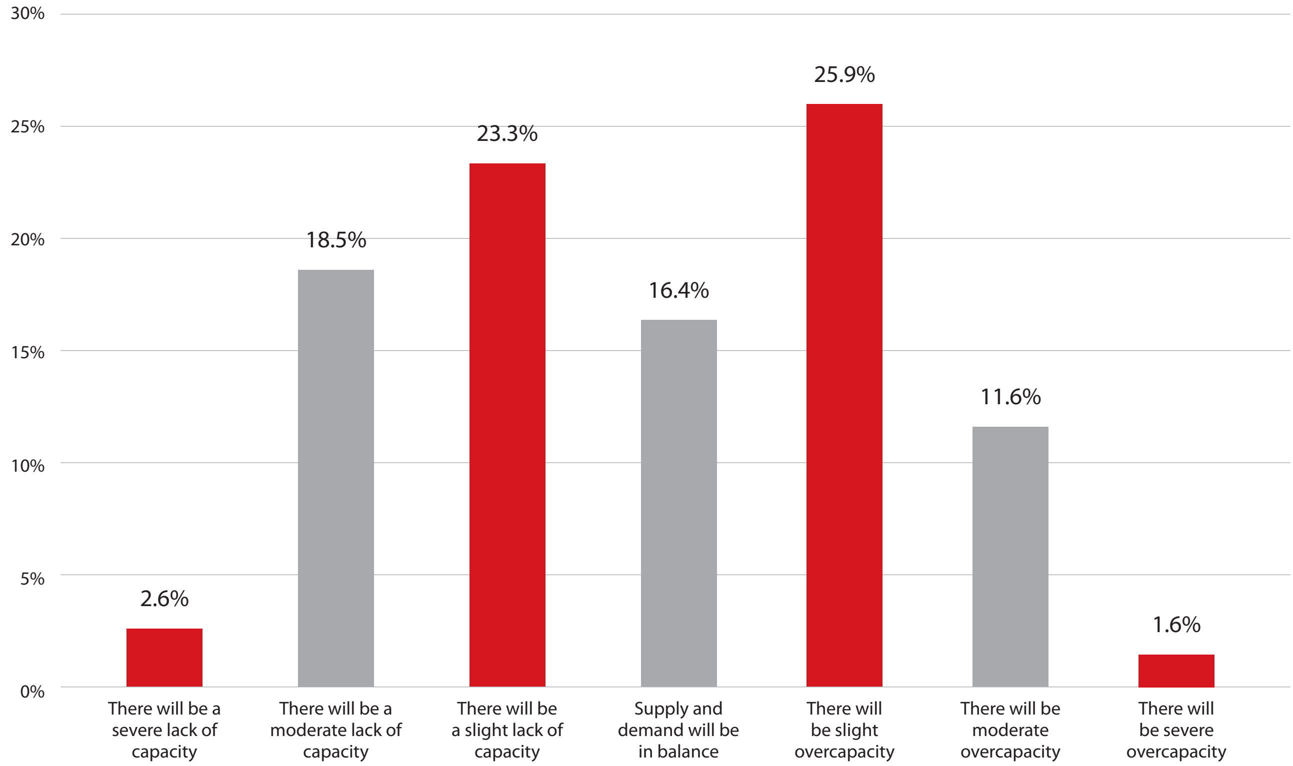
In our survey results there was a net balance of respondents who continue to expect that EMEA industrial space will be affected by a lack of capacity, at 44% expecting a lack of capacity, versus 39% who expect too

Figure 10: Balance of supply chain professionals expect constrained warehouse supply



189 respondents

Figure 11: A tight market for European warehousing continues



189 respondents

much space coming onto the market – a 5% difference.

Furthermore, 21% expect that shortage to be moderate or severe, against 13% who forecast an abundance of available space.

This suggests that industrial property will continue to be strong and rents are unlikely to fall. The imbalance is not overwhelming though, and we may therefore expect take-up receding to a more normal pace after a frenetic, record setting year in 2022.

Supporting this expectation, **JLL research** notes that: "In line with last year's record level, close to 32 million sq m were taken up during Q1-Q3 2022. However, there are signs that occupier activity might be returning to a more sustainable level. Notably, at around 8 million sq m of logistics space taken-up in Q4, the European logistics real estate market is seen to return to pre-pandemic levels of demand."

However, additional impetus will be given to the market by a drive to seek more modern and cost-efficient space. Occupiers are looking for industrial space that is more energy efficient, capable of supporting automation and closer to the end customer as they seek to combat the high inflation environment. Fifty-one percent of LSPs, retailers and manufacturers in our survey said that they were seeking new industrial space to optimise their supply chain and 46% were looking to refurbish assets to make them less energy-intensive (see Section 4). This will put a premium on the upper end of the market over 2023 and support new build construction, while the oldest and least energy efficient are more likely to find themselves empty.

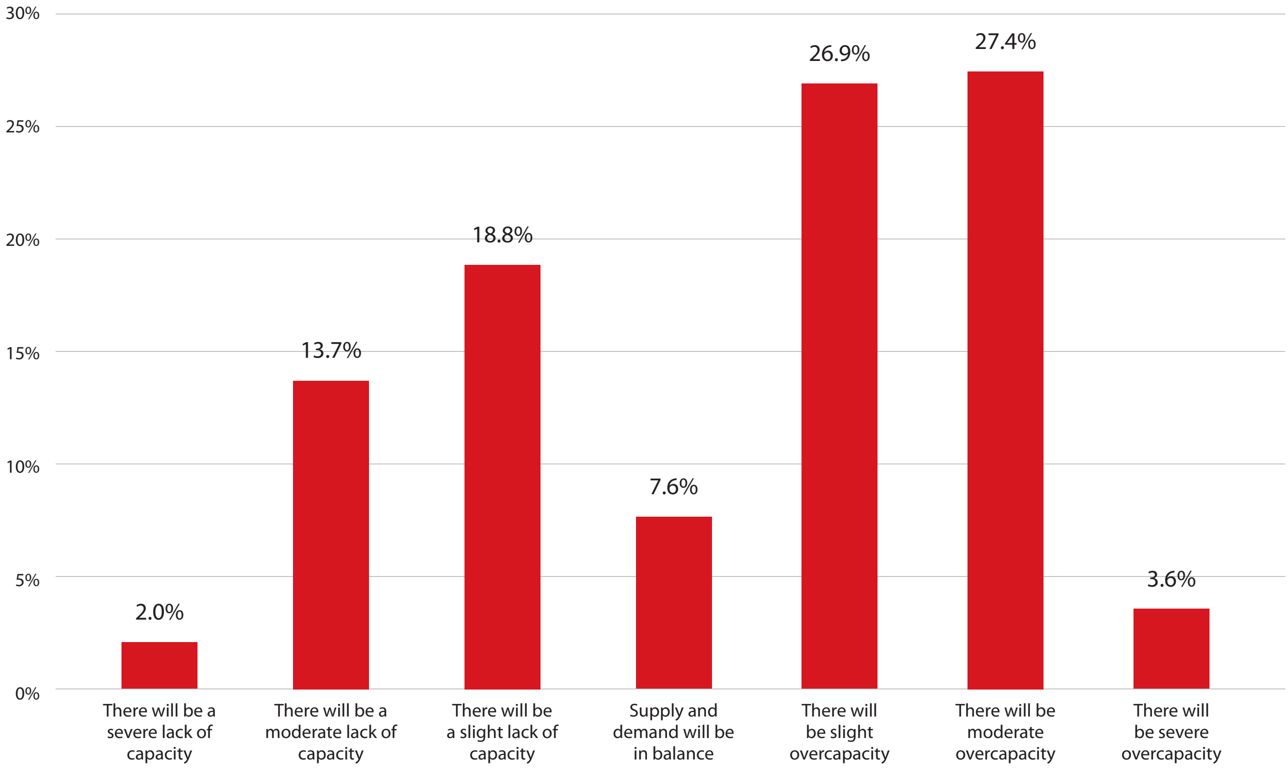
> In Europe, and especially in Germany, we intensively discuss locations and the size of our warehouses in order to adapt more flexibly to the economic situation, the challenges in the automotive industry and our growth plan.
>
> **Volker Ruegheimer, Head of Group Supply Chain Development, Volkswagen Group After Sales, Volkswagen AG**

2.4 The shipping outlook

While industrial space remains in demand, particularly for energy-efficient new builds, the market for ocean freight continues to slide and the trend of declining container costs and volumes, which started in 2022, will continue in 2023, leaving it firmly in a buyers' market.

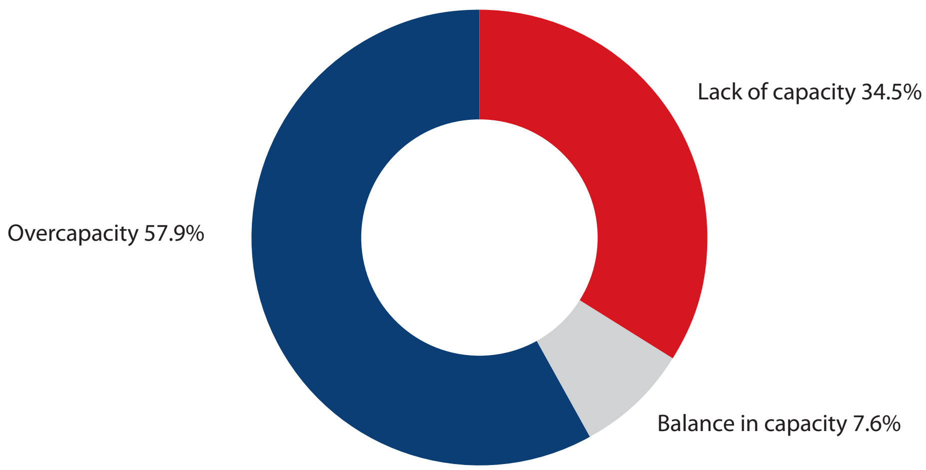
Across the pandemic period and its aftermath, major shipping lines raked in record profits as container rates soared to unheard of levels and quarantined households turned money once spent on services towards goods.

Figure 12: Shipping continues shift in favour of buyers in 2023



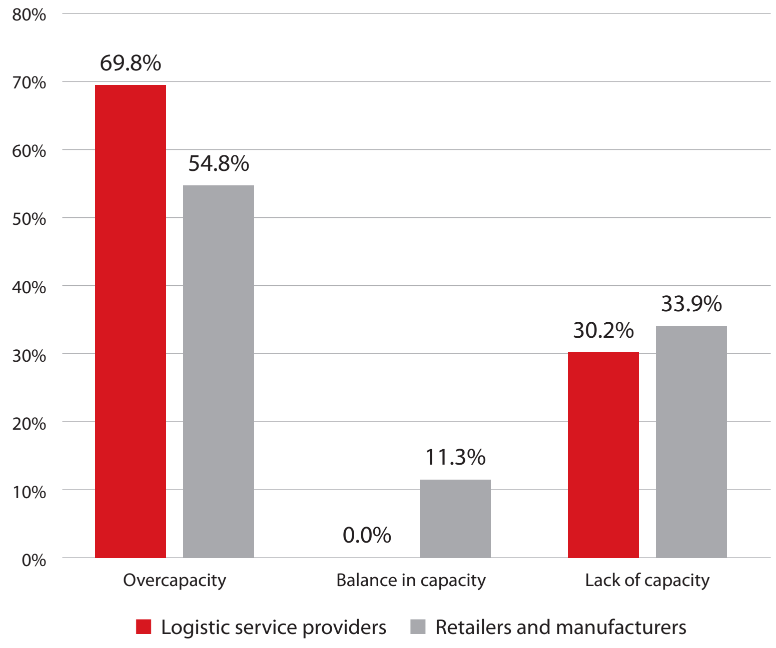
197 respondents

Figure 13: Balance of supply chain professionals expect overcapacity in shipping supply



197 respondents

Figure 14: Logistics service providers see more constraints in shipping capacity



105 respondents - logistics service providers, retailers and manufacturers only

That script is now flipped. In our survey 23% more respondents expect there to be overcapacity than a shortage in 2023, with 58% predicting too many ships chasing too few buyers. Thirty-one percent expect that oversupply to be moderate or severe.

LSPs are even more aggressive in their predictions, with nearly 70% anticipating that the shipping market will be plagued with overcapacity. This likely reflects the fact that LSPs generally have more exposure to the international shipping market and are more likely to be negotiating spot rates, which have been falling precipitously over the last year, dropping more than contract rates.

Those spot rates briefly saw a 43-week streak of falling container prices snap in the opening week of 2023, before returning to declining rates. **Drewry's composite World Container Index** as of 26th January stood 80% below pandemic peaks and is in fact now recording spot prices for containers below the 10-year average rate.

This comes despite a host of blank sailings being scheduled by the major shipping lines, **particularly on the Asia-to-North America routes**.

However, spot rates are indicative and do not represent the bulk of the market, which lies in longer term contracts. These are expected to also come down throughout the year, helping to cushion inflation. This will take time to filter through, but should cut shipping costs significantly. **Reuters reported** that: "long-term contract rates finished 2022 about 20% lower than the pandemic peak of more than $8,000 per container, according to maritime consultancy Drewry, which expects contract rates to halve in 2023. That forecast would put rates at about $3,200, versus the pre-pandemic rate of around $1,500."

This downward trend, and bulging order books for new vessels, even as export demand cools and the post-pandemic wave of consumer splurging ends, makes this a trend that should continue throughout the entirety of 2023.

3
Technology and initiatives

It is clear from the results we have seen thus far that supply chain operators continue to be heavily influenced by the three years of disruption that followed on from the pandemic and the spectre of inflation. This mindset can also be seen in the primary technology and operational initiatives being pursued currently.

Understanding and predicting the production and flow of goods dominates the technology investment outlook, while operationally organisations are looking to leverage that knowledge into maximising asset utilisation and to incorporate automation to free up capacity.

The hope is that these investments will help to negate or reduce the impact of the kind of extreme disruption we have seen in the recent past and improve efficiencies in a time of rising costs.

3.1 Uncovering, understanding and automating supply chains takes centre stage in 2023

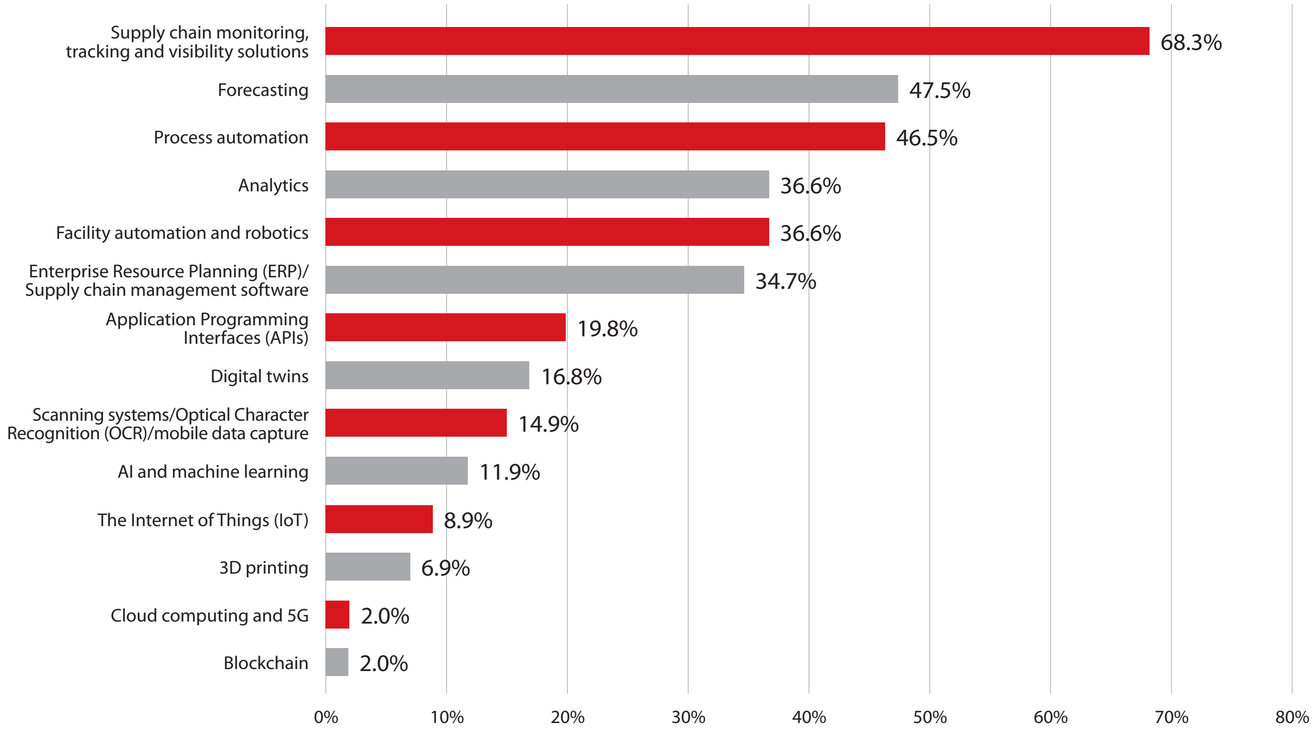
The direction of technology investment into supply chains in 2023 is dominated by two trends. The primary trend is to invest into technologies that allow for insight into supply chains and then to rapidly turn that data around into operational or forward-looking insights. Technologies that fall under this umbrella make up four of the top five highest priorities, namely:

- Supply chain monitoring, tracking and visibility solutions – **68%**.
- Forecasting – **48%**.
- Process automation – **47%**.
- Analytics – **37%**.

Furthermore, 35% of respondents from frontline industries say that Enterprise Resource Planning (ERP) and supply chain management software are going to be important for them in the coming year, which are important foundations for the above.

> We have made good progress in integrating new systems and technology in recent years, but there is great potential to do even more. Technology will increasingly be a differentiator going forward and our goals are to move faster, further scale up capabilities and know-how, and optimize use of resources for, and by, our people.
>
> **Remo Illi, Head of Regional Supply Chain Management Europe, Sandoz Pharmaceutical AG**

Figure 15: Technologies being prioritised for investment in 2023



101 respondents - logistics service providers, retailers and manufacturers only

The second main thrust of technology investments is towards automation in order to combat the labour and capacity shortages that continue to hang over supply chains at the start of this year. As already noted process automation is a key priority, but automation is also becoming more prominent on the factory and warehouse floor. Thirty-seven percent of retailers, manufacturers and LSPs expect automation and robotics in their facilities to be core to their investment strategy in 2023.

Other technologies that largely lie outside these two central frameworks are rated far lower by our survey population, with more bleeding edge technologies such as digital twins (17%), 3D printing (7%) and blockchain (2%) drawing much less interest. This suggests that the focus in 2023 is to improve core operations through reducing overheads, maximising throughput and matching supply to demand in order to combat the high inflation environment.

3.2 Companies seek to make the most out of transport assets in 2023

While ocean freight is now in the throes of a downturn and a maritime sector that increasingly looks with concern at overcapacity, overland transport in Europe continues to be an expensive place to operate in.

The key drivers of this are a problematic labour market and high operating costs, principally driven by the price of diesel.

For the former, the pipeline of new drivers into the European freight market remains woefully below requirements. Marie-Anne Cervoni, Strategic Marketing Intelligence Senior Manager for industry body the IRU, commented that **their research** showed that there were 425,000 unfilled truck driver jobs in Europe as of Q3 2022 and that there is no sign of reprieve. In fact, the opposite seems to be the case, as "just since January [to September] of this year [2022], we have observed a 44% increase in demand for truck drivers," she said.

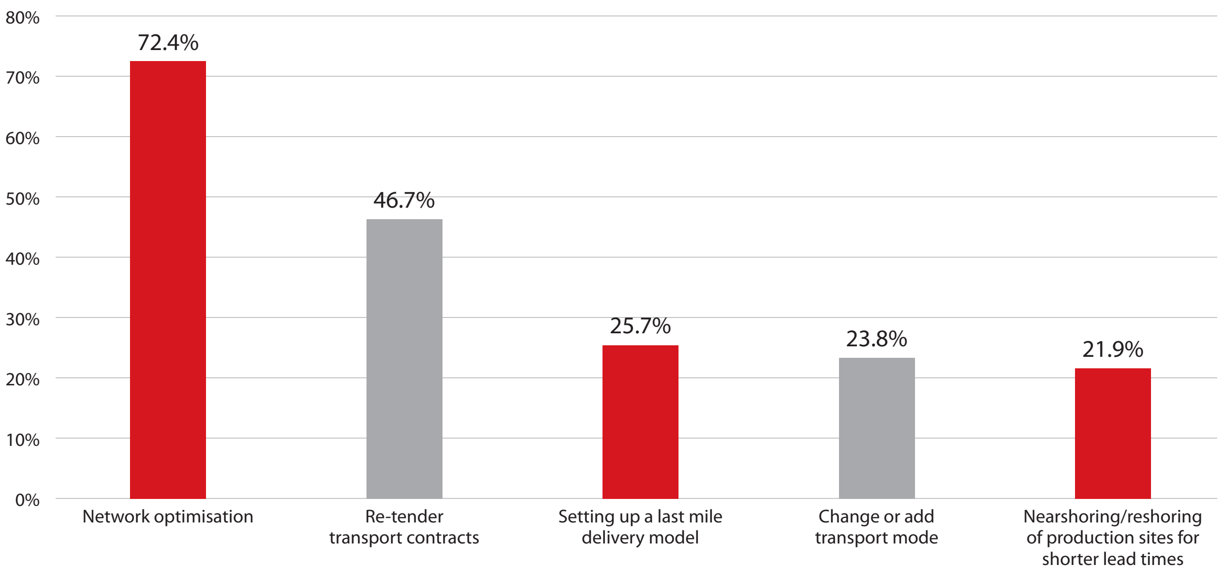
The second component is operating costs, principally fuel. While the price of diesel in Europe has fallen from multi-year highs seen in the middle of 2022 and operating costs have been declining since the **record high of Q3 2022**, there has not been a sudden collapse and the background dynamics suggest that we shouldn't expect one either. Russian diesel now falls under EU sanctions and this has meant sourcing new supplies, while the risk of shortages, although lessening, is keeping the market anxious, as can be seen Chapter 1. This has meant prices have remained above the long term average.

We also saw dislocations in European transportation networks highlighted in 2022, with low water levels as a result of drought cutting capacity over some routes and rail freight through Eurasia hit by disruptions to trans-Russian routes.

> We see a shortage of more than 400,000 truck drivers in Europe, mainly in Poland, Germany and the UK, and thus a shortage of transport capacity. We have analysed the utilisation of our trucks and continuously increased the occupancy rate of the truck over the last two years, which has led to less truck demand, enormous cost savings and a significant reduction in our CO2 emissions.
>
> Due to the lack of truck capacity, but also because of the high CO2 emissions of trucks, we would like to make greater use of the capacities of rail freight transport in Germany. However, the infrastructure of rail freight transport is in need of renewal, the reliability of delivery in the interests of our customers is currently limited and, in addition, the price development in rail freight transport makes it difficult to switch to train capacities.
>
> **Volker Ruegheimer, Head of Group Supply Chain Development, Volkswagen Group After Sales, Volkswagen AG**

We can therefore expect overland transportation costs and securing capacity at critical points to continue to be headaches for supply chain planners and companies across Europe in 2023.

Figure 16: Key transport initiatives in 2023



105 respondents - logistics service providers, retailers and manufacturers only

These increased costs are driving the industry to get more out of existing assets and contracts. This is why the primary transport initiative reported in our survey was to conduct network optimisation.

Network optimisation in this context is the process of improving the efficiency of transport movements through better management of contracts, partners and owned fleets so that utilisation of assets rises, inactive time falls and freight-ton efficiency increases.

The core of these initiatives will be the investments in monitoring, analysing and automating decision making in supply chains noted in the prior section. Improving asset utilisation relies on understanding freight flows in as close to real time as possible and enacting optimisation in a dynamic environment, which will be far easier to conduct with high fidelity visibility and automation of processes.

We can also see the need for efficiency and the desire to not pass costs onto customers wherever possible in the second-highest priority, which is to re-tender transport contracts (47%). After 2021 and 2022 breached record cost levels, there is clearly hope that a softening demand picture and the passing of the initial shockwave from Ukraine is going to lead to lower costs in 2023 and a more advantageous negotiating position. This is reinforced as we break it down further, where 56% of retailers and manufacturers are prioritising renegotiating contracts, compared to 33% of LSPs.

European companies clearly hope that they can wring more out of their existing transport networks, but the hard reality remains that the available workforce does not have much more to give and so while we can expect some softening in rates and improvements in performance, the environment will continue to be challenging to operate within.

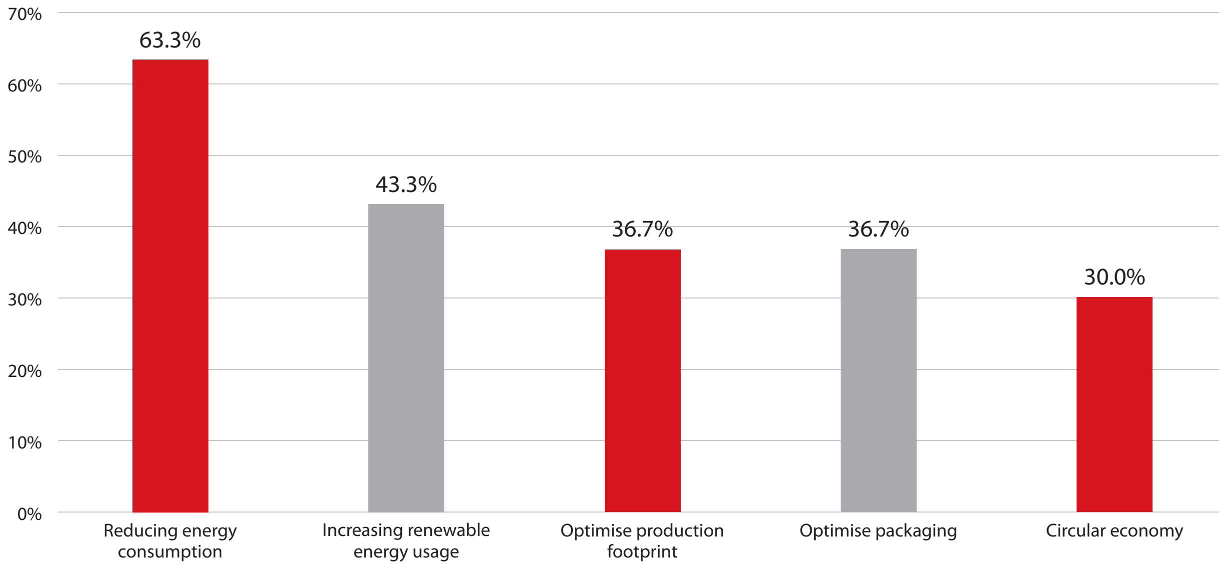
> The perception that the days of the cost-optimised, linear supply chains are over is prevailing. The trend towards agile, networked supply chain optimised for resilience and sustainability can be clearly observed. Beyond a short-term-oriented margin approach, collaboration plays a huge role in ensuring supply chain integrity and enabling greater communication and visibility. We need to tear down the fences to our partners within our supply chain. Collaboration creates a strategic partnership that ultimately helps all parties in the supply chain achieve business objectives and meet new supply chain challenges.
>
> **Volker Ruegheimer, Head of Group Supply Chain Development, Volkswagen Group After Sales, Volkswagen AG**

4
Sustainability

With warehouses and transportation networks seeing sharp rises in operating costs in 2022 and only limited relief on the horizon as inflation remains stubbornly high to open the year, there is a need for assets in supply chains become more energy efficient.

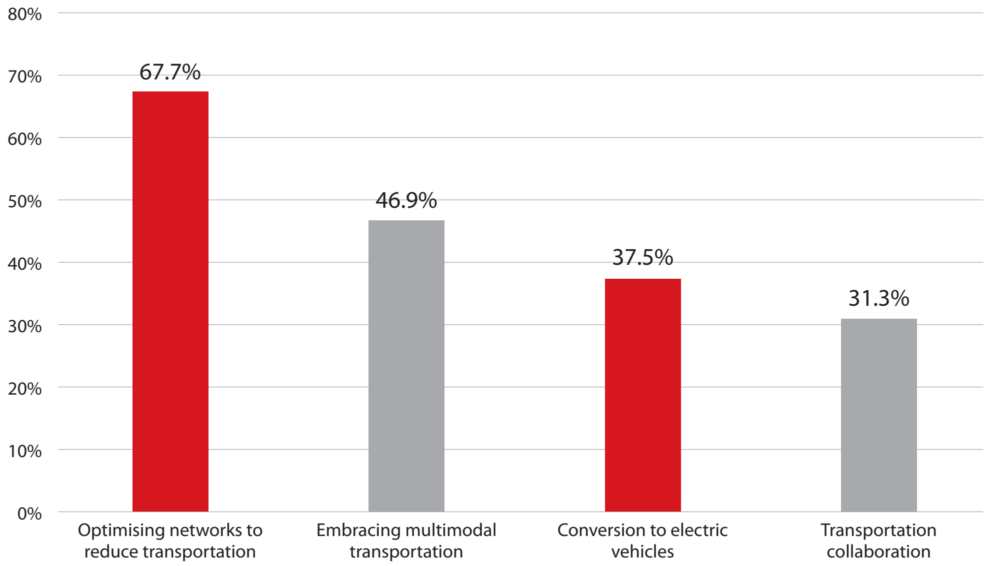
Combine that with consumers becoming more concerned about the green credentials of their purchases, as well as a strong legislative focus on emission reduction within Europe, and there is a recipe for sustainability to top priority lists in 2023.

Figure 17: Production & manufacturing sustainability initiatives being pursued in 2023



96 respondents - logistics service providers, retailers and manufacturers only

Figure 18: Transportation sustainability initiatives being pursued in 2023



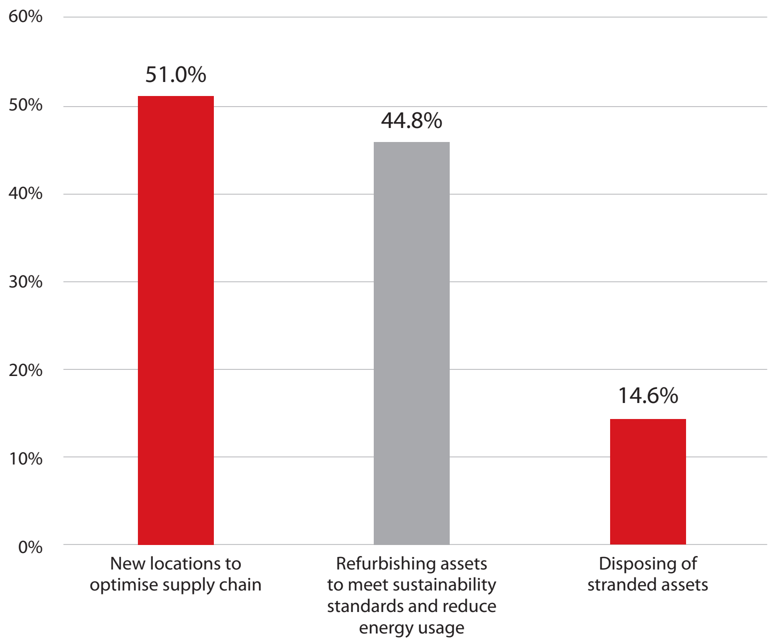
90 respondents - logistics service providers, retailers and manufacturers only

That focus, according to our results, will largely be focused in two areas: reducing energy usage, particularly for fossil fuels, and cutting the distance goods need to travel.

For the former, 63% of respondents said they are looking to reduce energy consumption in manufacturing and production stages, and 43% said they want to raise the share of renewables used during these processes. Then, when it comes to warehousing goods, 46% are upgrading their facilities to be more energy efficient.

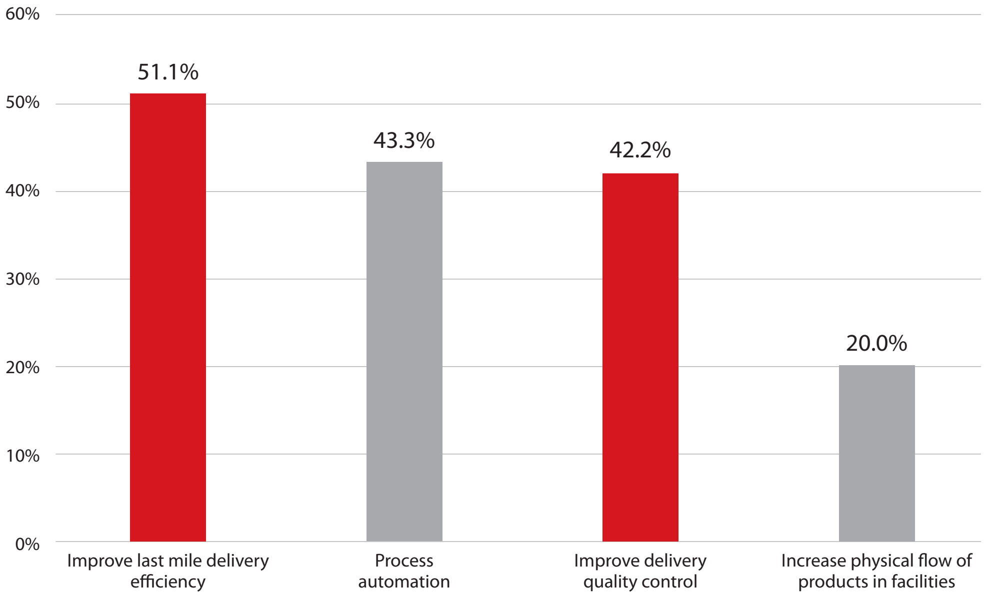
Conversely, only 38% reported that they would aim to electrify vehicles used in their supply chains, but this too may be driven by energy bills, which have soared, particularly for businesses in the EU, and made electric vehicles less competitive compared to conventionally powered vehicles.

Figure 19: Warehousing sustainability initiatives being pursued in 2023



96 respondents - logistics service providers, retailers and manufacturers only

Figure 20: Direct to consumer, omnichannel and last mile sustainability initiatives being pursued in 2023



90 respondents - logistics service providers, retailers and manufacturers only

The second main direction of sustainability initiatives in 2023 will focus on reducing the transportation burden, which will also help to mitigate capacity shortfalls in overland transportation. We can see this in the main initiatives being pursued in warehousing transportation and last mile operations. Sixty-eight percent said that they are aiming to optimise supply chains through configuring transportation networks to be more compact, 51% through moving their warehouses to better locations and 51% also said that they are looking at making their last mile process more efficient.

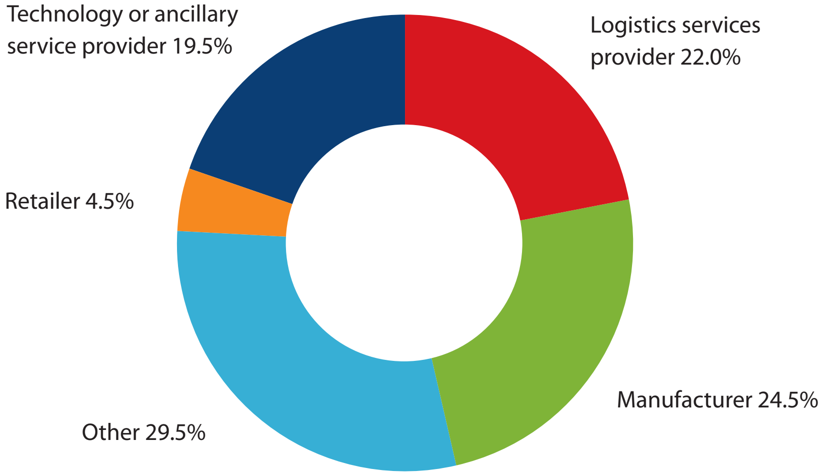
These trends underline that inflation and cost control pervade supply chain thinking this year, and are putting the emphasis on driving sustainability through directly reducing the distance to market and energy intensity of all stages before a product reaches its end customer.

Methodology

This survey was conducted between December 12th 2022 and January 9th 2023 through the Reuters Events, Supply Chain and selected partners databases of supply chain professionals.

The survey drew in 289 total respondents. This was the filtered for respondents from the EMEA region only, resulting in 241 respondents initially answering the survey and 171 completing it to end.

The EMEA respondents identified themselves as followed as part of the survey questionnaire.



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