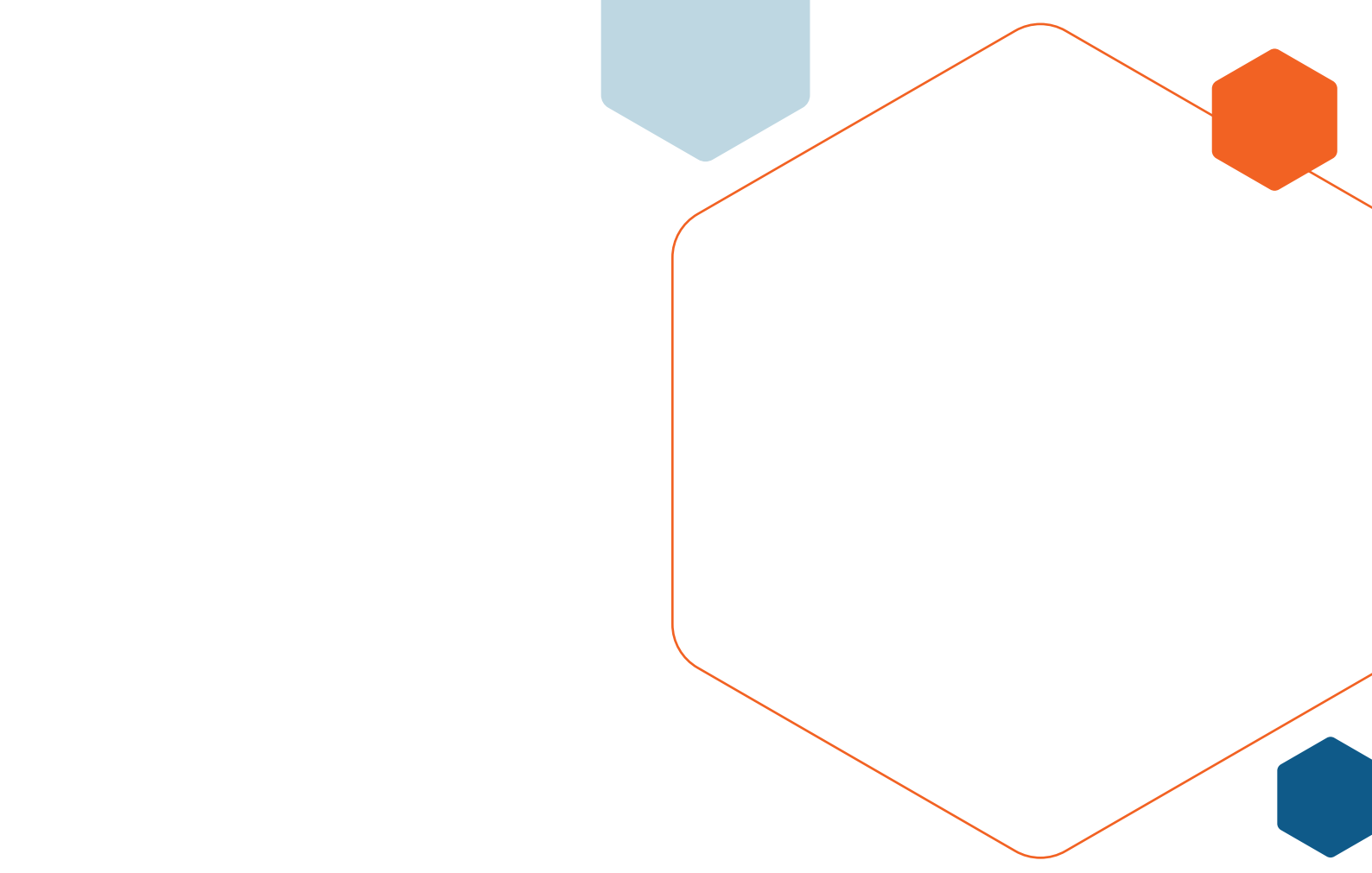




**PELI**  
**BIOThERMAL™**

# INDUSTRY CHANGES AND CHALLENGES

## RESEARCH RESULTS, NOVEMBER 2022



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# INTRODUCTION

**This survey was conducted online in Q4 2022 with sampling conducted in collaboration with a major industry publication.**

We conducted the survey to ask businesses how they thought the industry had changed over the past few years, and what the future holds in light of recent events. This exercise provided insights that will help logistics businesses consider the challenges they face and how they can respond to them in the years ahead.

A contribution to One Tree Planted was made for every completed survey received. Respondents represented 26 countries from all regions and a broad range of businesses across the logistics sector, showcasing a wide variety of viewpoints and expertise.

The takeaways from the survey can be grouped in to three broad groups: **finances, global challenges** and **the impact of technology**. These reflect the concerns of the industry both in the present and into the future, with each affecting the others in different ways. We hope that this provides a broad and informative view of the industry's thoughts and concerns as we move further into 2023.

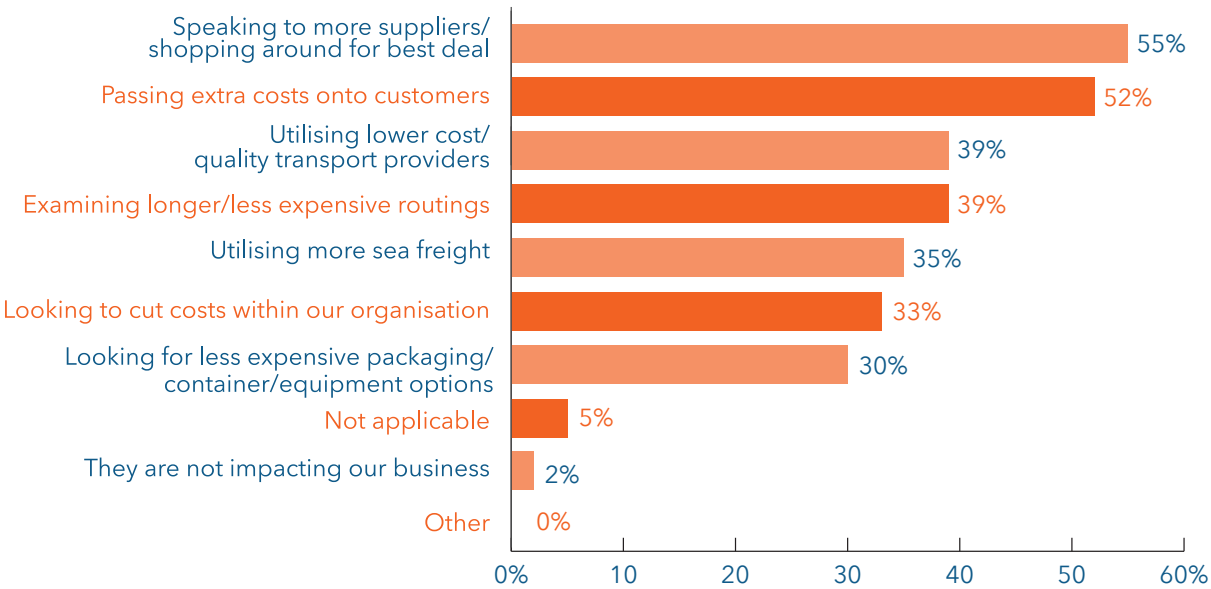
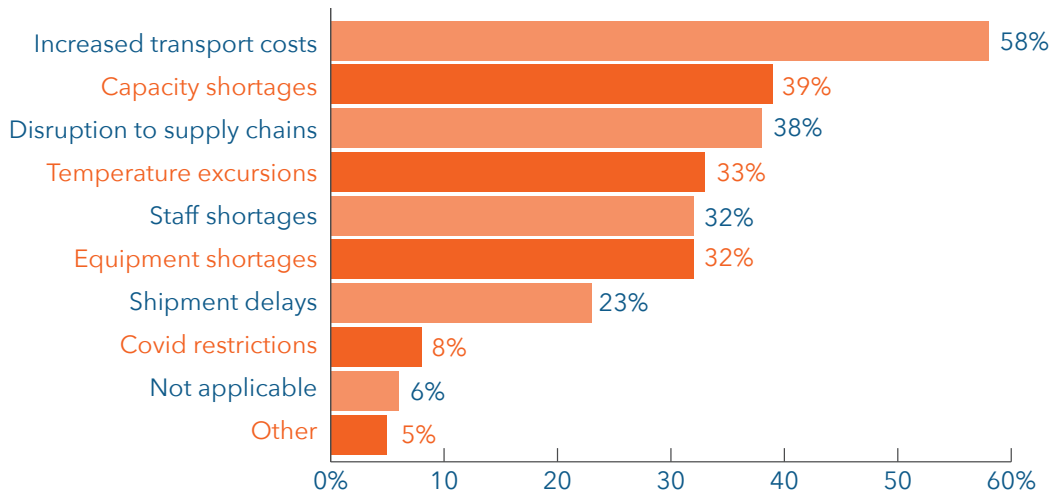


**ONETREEPLANTED**



# FINANCES

# WHILE ISSUES CAUSED BY THE PANDEMIC HAVE RETREATED TO AN EXTENT, NEW CHALLENGES HAVE ARISEN.



What are the key temperature control challenges your organisation is currently facing?

How are you managing the increasing costs associated with global transportation?



**KEY FINDING:** RISING TRANSPORT COSTS IS THE PRIMARY TEMPERATURE CONTROL CHALLENGE FACING BUSINESSES TODAY.

# FINANCES

**Increased transport** costs were the key temperature control challenge that logistics organisations are currently facing, with 58% of respondents reporting being affected in some way. This is not a surprise considering the increase in fuel costs across all forms of transport and a broader 'hangover' from the pandemic, as well as capacity limitations and the broader cost of living crisis. Costs are just about reaching pre-pandemic levels, but businesses will feel the effects of this period of high costs for a long time to come.

Other popular answers included **capacity shortages** (38%) and **disruption to supply chains** (38%), reflecting the ongoing effects of geopolitical events such as the pandemic and the war in Ukraine. Some in the industry are predicting these challenges may factor into a fall in demand over the next year or so, exacerbating pressures on the industry.

**Temperature excursions** (33%), **staff shortages** (32%) and **equipment shortages** (32%) were reported at similar levels of prevalence, all of which reflect generalised operational issues. These may be hangovers from the pandemic, or rather the industry settling into new modes of working with more diversified supply chains, new routes and other changes. Innovations in technology may assist in mitigating temperature excursions going forward, while staff and equipment shortages will hopefully improve as the supply chain becomes more robust.

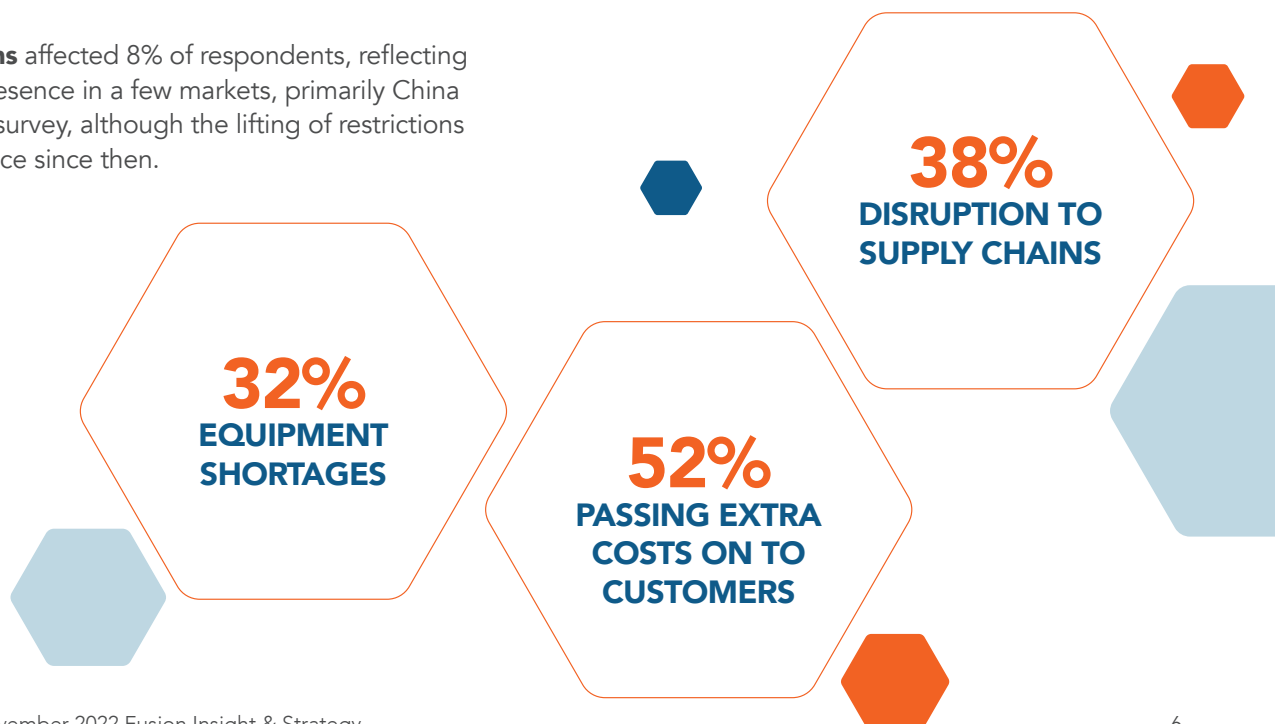
**COVID restrictions** affected 8% of respondents, reflecting their remaining presence in a few markets, primarily China at the time of the survey, although the lifting of restrictions has continued apace since then.

## Mitigation efforts

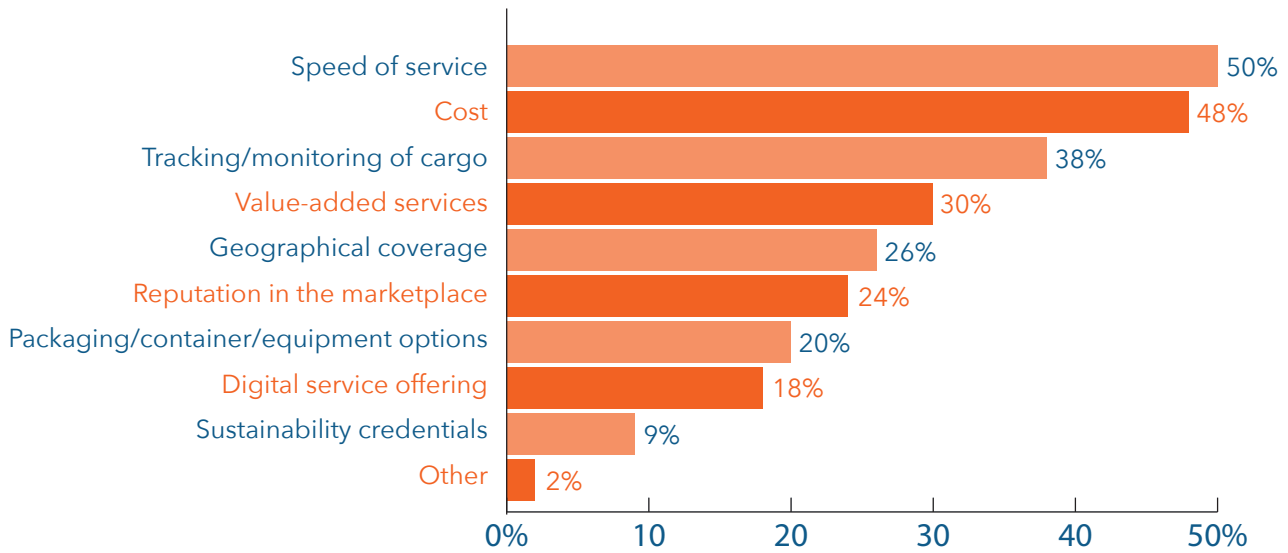
Companies have been using various means to mitigate these increased costs, the most popular of which were **shopping around for better deals** (55%) and **passing extra costs on to customers** (52%), both used by over half of our respondents. This explains the general increase in prices, as well as illustrates how businesses are now developing relationships with multiple partners at every stage of the supply chain in order to make them more robust.

Around a third of respondents answered that they had examined **changing their routes** (39%) in some way to mitigate costs, as well as **using more sea freight** (35%), although industry data suggests demand is fluctuating in this sector, with rates having potentially 'bottomed out' in recent months. Both route changing and the use of more sea freight suggest a more efficiency focused strategy, especially for return trips.

There have also been **cuts within organisations** (33%) via their **choice of transport providers** (39%) and **packaging choices** (30%), suggesting increased competition for labour and among transport and packaging partners in each of these spaces.



# FINANCES



### Partner preferences

While **cost** (48%) is clearly a factor for businesses looking for transport partners, **speed of service** (50%) came out on top in the survey. Considering the focus of the survey on cold chain logistics and the recent disruptions of supply chains during the pandemic, the preference for speed begins to make sense.

**Tracking of cargo** (38%), **value-added services** (30%) and **geographical coverage** (26%) also placed highly, while **reputation in the marketplace** (24%), **packing options** (20%) and **digital service offering** (18%) were also mentioned. These suggest that businesses are valuing partners that can provide as many services as possible under one roof, while also offering customisability to best support their needs.

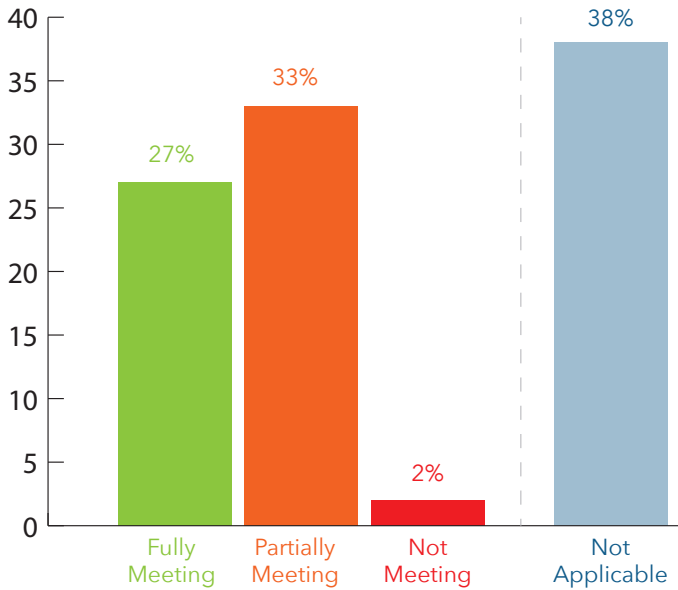
**Sustainability credentials** (9%) came last out of the named options. While ESG has certainly risen up the agenda in other sectors, logistics has had such a turbulent time over the past few years that ESG has not risen to the same prominence, despite some describing it as the aviation industry's 'license to grow'. It is likely that legislative or regulatory reasons to make business models more sustainable will be imposed on the industry. Onshoring of supply chains on the product side will help with this, limiting air and sea miles as production moves closer to its destination.

What are your key considerations when selecting a transport company partner within the supply chain?

### THE THREE MOST IMPORTANT CONSIDERATIONS WHEN SELECTING A TRANSPORT COMPANY PARTNER WITHIN THE SUPPLY CHAIN:

1. SPEED OF SERVICE
2. COST
3. TRACKING / MONITORING OF CARGO

# FINANCES



## Temperature-controlled packaging meeting demands of businesses

One positive sign for the sector is that temperature-controlled packaging is **fully meeting** the additional unexpected demands of 27% of organisations to whom it was applicable, with only 2% of businesses responding that their demands were not being met.

A written response to the question from a business whose needs were 'fully met' emphasised the importance of tracking in lowering risk, but also emphasised the necessary premium this entails. Clearly businesses value the ability to know the status of their goods highly enough to continue paying this premium and are likely to continue to do so as the technology improves.

Another insight from a business whose needs were 'partially met' was that longer validation timelines may help mitigate the effects of delays from airlines, customs and freight carriers, while another emphasised that end-to-end routing could be improved to ensure that the 'all-in-all transit timeline with required temperature' is made. This is something that is likely to improve both due to advances in temperature-predictive technology and onshoring in the coming years, as well as packaging innovations like phase change materials and more temperature resilient products.

Are your temperature controlled packaging (TCP) solutions meeting any additional 'unexpected' demands?

We have more than one supplier to fill gaps, if any.

We are good at what we do.

If the correct equipment is used together with live tracking, then the risks drop to a low. However, it comes with a price tag.

Depending on end-to-end routing, they might not meet the all-in-all transit time frame with required temperature by shipper.

It would always be good to have longer validation timelines given the delays we are seeing from airlines, customs and freight carriers.

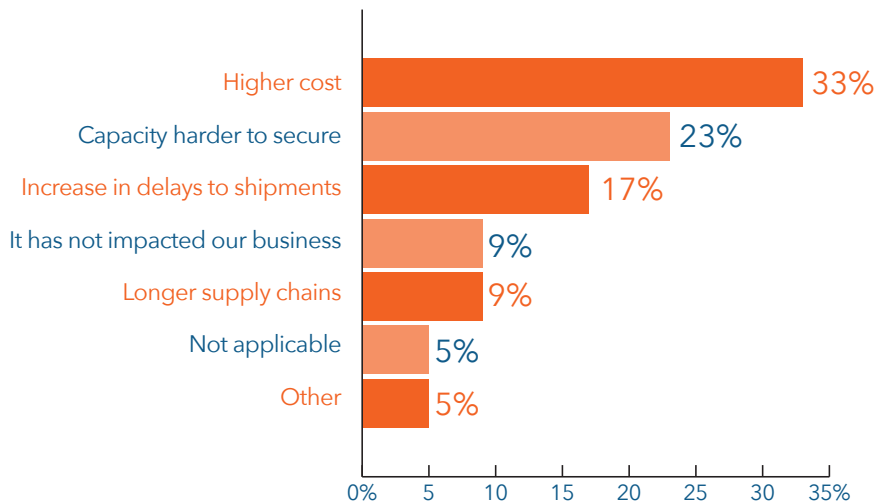
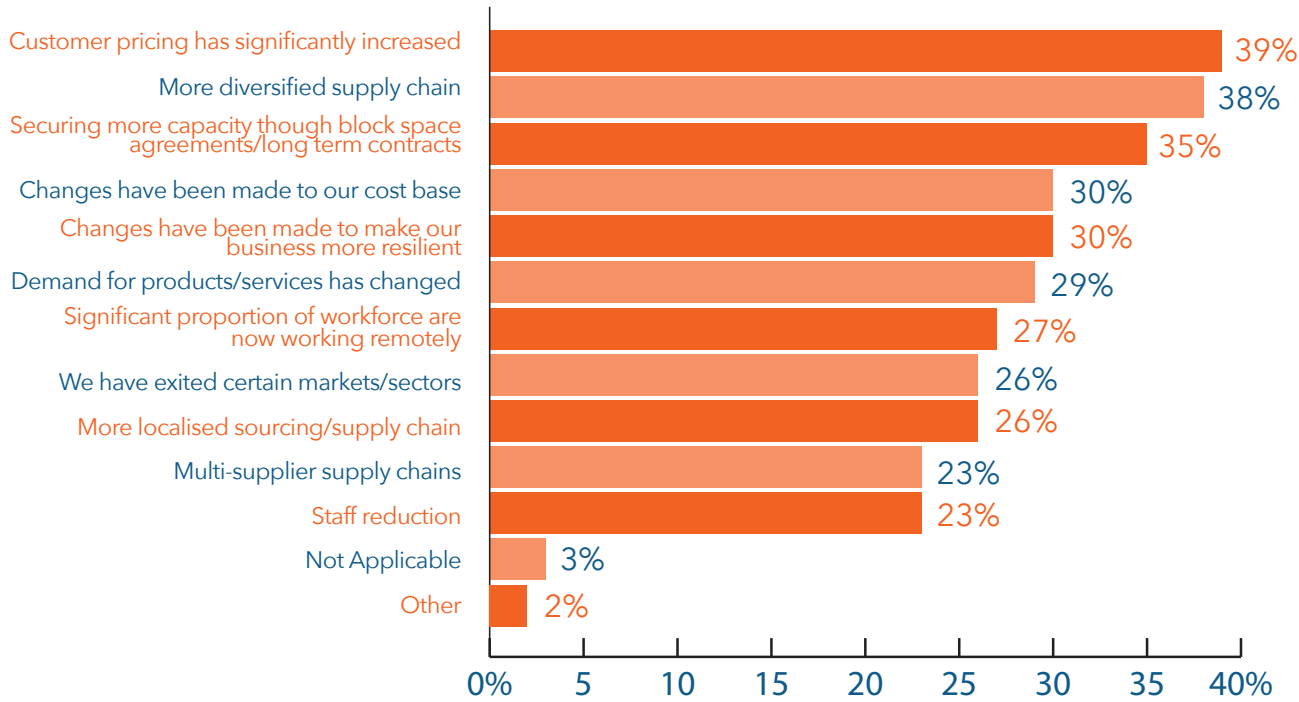




# GLOBAL EVENTS

## GLOBAL EVENTS

# THE FALLOUT OF THE PANDEMIC HAS HAD A LASTING EFFECT IN THE SECTOR, WHILE THE WAR IN UKRAINE CONTINUES TO PRESENT CHALLENGES.



What changes have you had to make within your organisation due to the worldwide disruptions cause by COVID in the past two years?

How has the war in Ukraine and other conflicts globally impacted your business and global logistics operations?



**KEY FINDING:** GEOPOLITICAL FACTORS CONTINUE TO PROVIDE CHALLENGES FOR BUSINESSES.

## GLOBAL EVENTS

Interestingly, these questions on global events were the only set in which no option was chosen by over 50% of respondents, implying these events have a broad range of effects that have affected businesses to varying degrees.

The more common effects of the COVID-19 pandemic were increased **customer pricing** (39%), more diversified **supply chains** (38%) and securing more **capacity** (35%). These effects have continued post-pandemic and had an impact on business practices up to the present, further encouraged by the 'China plus one' approach, a strategic position to avoid over reliance on China. Diversified supply chains have continued to proliferate, while securing more capacity has meant that the industry has consolidated in some ways, with less large businesses operating and those that are left offering a broader selection of services. On the other side, smaller businesses have often had to specialize further to survive.

Across the rest of the answers, businesses have broadly moved to make themselves more resilient (30%), with efforts toward this end also performing well, such as multi-supplier supply chains (23%) and more localised sourcing (23%).

Some companies reported their exit from certain sectors (26%) and that demand for their products/services has changed (29%). These both can be interpreted positively or negatively, with the former being a requirement for survival or a more deliberate resilience strategy, and the latter being either a positive or negative change, or perhaps a diversified one where one product has suffered but another has thrived. Other effects include on workforce **significant proportion of workforce WFH** (27%), **staff reduction** (23%), as in many other sectors.

The war in Ukraine has had similarly broad effects to varying degrees. **Higher costs** (33%) have had the broadest impact, illustrating the ripple effects the war has had throughout supply chains, as does the second most common answer, **capacity harder to secure** (23%).

Many air routes from Europe to the Middle East would have gone over Ukraine and must now go around it. Of course, there are the broader effects on fuel prices, which have had an impact on logistics and industry as a whole. Other answers suggest they came from businesses with deeper ties to the area, such as more supply chain exposure. These are an increased delay in **shipments** (17%) and **longer supply chains** (9%).

## THE THREE MOST POPULAR CHANGES MADE WITHIN ORGANISATIONS DUE TO THE WORLDWIDE DISRUPTIONS CAUSED BY COVID:

1.

INCREASED CUSTOMER PRICING

2.

MORE DIVERSIFIED SUPPLY CHAIN

3.

SECURING MORE CAPACITY



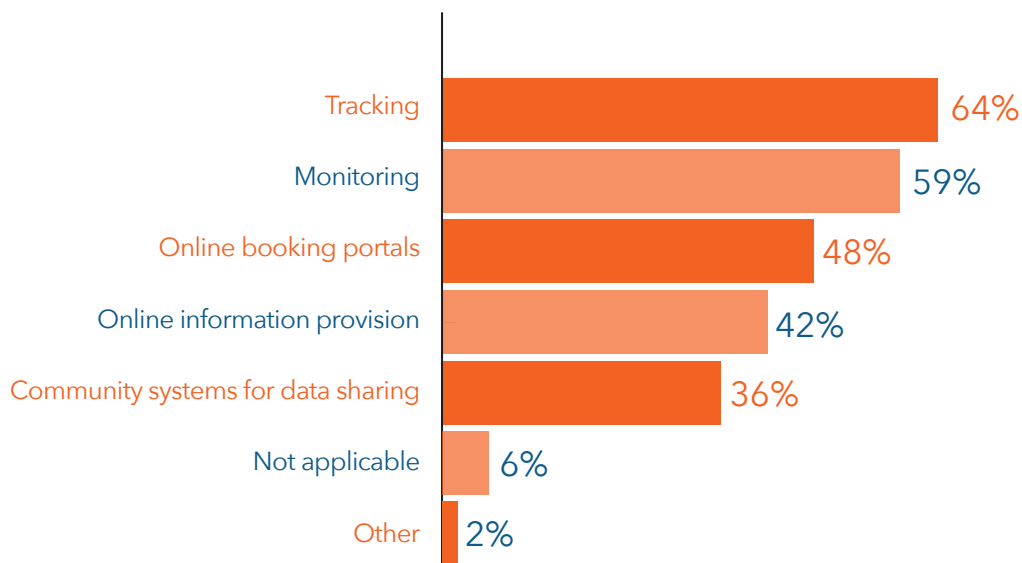
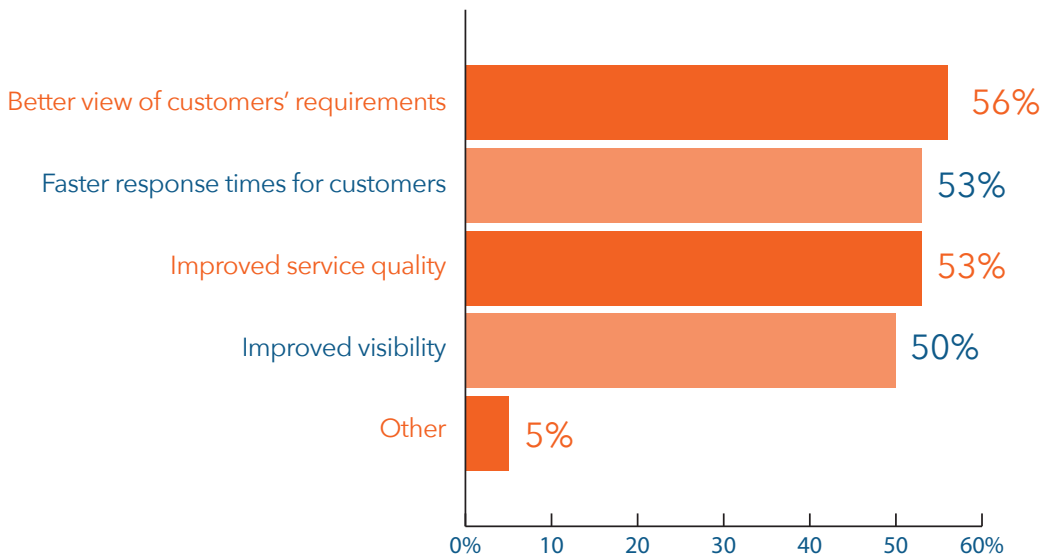
**SUMMARY:** THE FALLOUT OF THE PANDEMIC HAS HAD A LASTING EFFECT IN THE SECTOR, WHILE THE WAR IN UKRAINE CONTINUES TO PRESENT CHALLENGES.

The background is a solid orange color. It features several geometric elements: a large, faint white hexagonal outline in the upper right; a light blue hexagon at the top center; a bright blue hexagon at the top right; a dark blue hexagon on the right side; and a light blue hexagon at the bottom center. A thin white line forms a partial hexagonal shape at the bottom right.

# **TECHNOLOGY & THE FUTURE**

## TECHNOLOGY AND THE FUTURE

# CUSTOMERS ARE EXPECTING MORE DETAIL DELIVERED MORE IMMEDIATELY.



How is your business integrating the latest technological developments within the marketplace to enhance your services/offering?

Which new technologies have proved the most beneficial to your business?



**KEY FINDING:** TECHNOLOGY WILL CONTINUE TO CHANGE THE SECTOR IN EXCITING AND INNOVATIVE WAYS.

## TECHNOLOGY AND THE FUTURE

Over half of respondents had used technology to increase their operations across the board, including to **get a better view of customer requirements (56%), to increase response times to customers (53%), improve service quality (53%) and to improve visibility (50%)**. This illustrates that digitalisation efforts across the industry have broadly been successful and are improving relationships to customers and providing efficiencies throughout operations.

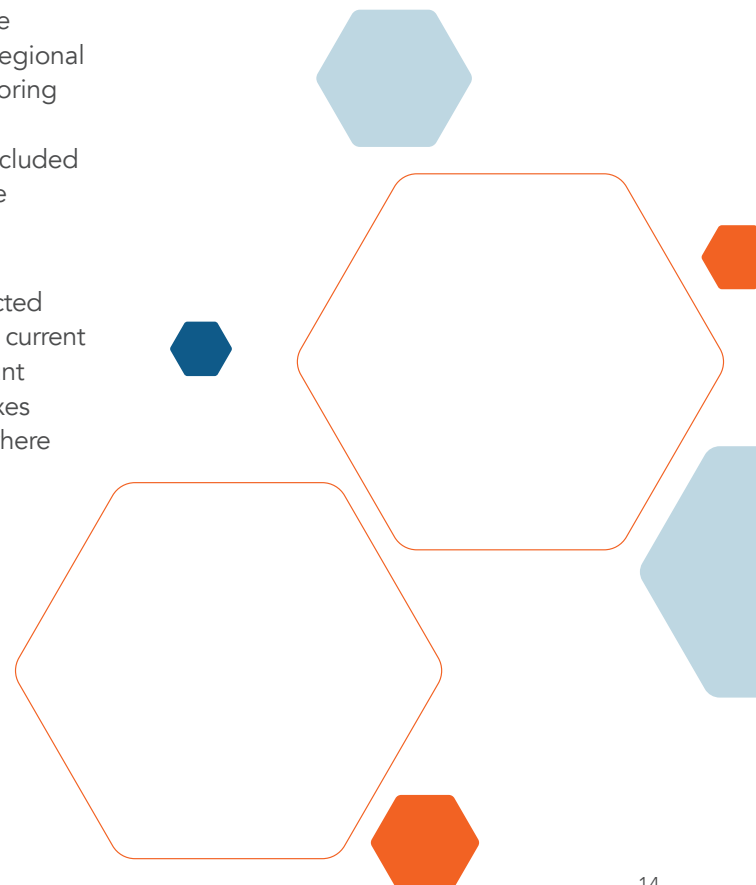
When ranking how beneficial different technologies had been, **tracking (64%)** came out on top, with **monitoring (59%)**, online booking portals (48%), **online information provision (42%)** and **community systems for data sharing (36%)** also being used by significant proportions of our respondents. These developments have been broadly described as the Internet of Things (IoT) and are forecast to reach a market of \$10.9 billion by 2026 in cold chain alone.

Respondents generally predicted that technology would continue to improve in the tracking and transparency space, with more accurate and more detailed information being available both to transport companies and customers. This should allow for better risk management and increased efficiency across supply chains. Some suggested this may be based on blockchain technology, although this can be very energy inefficient.

Some more infrastructural technology mentioned included improvements in scanning technology to improve processes, integrations with government systems for streamlined compliance, and active temperature logging for more accurate reporting and temperature control.

Looking to the future, our respondents predicted changes in the structure of the industry, including near shoring (an increase in regional services and decrease in global services), likely due to the onshoring of industries like microchip production and other technology manufacturing. This changing of routes to be more localised, included a diversion to second tier cities, as well as a consolidation of the supplier base.

Aside from the broader digitalisation of the industry, some predicted innovations in cold chain packaging. This may be referring to the current interest in reusable and recyclable products; increasing the amount of uses of a singular packaging solution or making single-use boxes more recyclable. There are also new models being developed, where customer-owned inventory is managed by the cold chain supplier, as well as rental models and options. Interestingly, the introduction of new financial instruments to mitigate risk was also mooted.





# CONCLUSION

# CONCLUSION

The survey results have illustrated that the industry still faces a myriad of challenges in the coming months and years, but that there are exciting technological developments on the horizon that will allow business to occur more seamlessly and smoothly, enabling new, more expansive services to be offered to clients.

In terms of the broader economic outlook, the industry has faced unforeseen turmoil in the last few years, and the effects of this period are still being felt today. While logistics and shipping bounced back in 2021 after the pandemic, carriers are now feeling the effects of this over correction as demand begins to fall.

That said, the worldwide economic picture is not as bleak as it was even a couple of months ago. While the spectre of a recession looms, recent economic data from major economies suggest it may not be as deep as once feared<sup>9</sup>, or even avoided altogether in some economies. Logistics businesses can take some solace from this in the medium term, despite current demand trends<sup>10</sup>.

While interest rate rises are having their desired effect of bringing down inflation, increased borrowing costs will have an effect on start-ups across the economy and in the logistics sector. They may find it harder to secure funding, and with the broader industry outlook, harder to achieve profitability and may have to cut costs in order to move towards it.

Recent pandemic upheaval-induced trends are likely to continue. The diversification of supply chains will continue apace, exacerbated by other geopolitical forces such as onshoring and a wish to move away from Chinese manufacturing from Western companies.

Technological advancements are likely to iterate on existing technologies and allow businesses to offer more value-added services, such as more robust tracking.



CONTINUATION OF FINANCIAL CHALLENGES



DIVERSIFICATION OF SUPPLY CHAINS



ADDITIONAL VALUE-ADDED SERVICES





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# ABOUT US

## ABOUT US

**Peli BioThermal offers the widest range of temperature-controlled packaging and service solutions to the global life sciences industry.**

The company's products ensure that delicate biological materials arrive intact and effective, despite exterior environments. Peli BioThermal is dedicated to developing innovative products designed to fulfill the complex needs of the global life sciences industry. Peli BioThermal's customers benefit from its extensive expertise in ensuring that temperature stability is maintained throughout the distribution chain. The company also offers a complete portfolio of services and software to support end-to-end temperature-controlled packaging asset management. Peli BioThermal is a division of Pelican Products, Inc., the global leader in the design and manufacture of high-performance protective cases, advanced portable lighting systems and rugged gear for professionals and outdoor enthusiasts. For more information, visit [pelibiothermal.com](http://pelibiothermal.com).

### Your Cold Chain Partner from Discovery to Distribution

**Peli BioThermal is the first cold chain packaging solutions provider to make available a broad and comprehensive portfolio of patented and award-winning single-use and reusable thermal protection packaging solutions for the safe transport of pharmaceuticals, clinical trials, diagnostics, tissue, vaccines and blood supplies for the life science industry.**

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