

2022 Cargo Theft Report

TT CLUB,
TAPA EMEA
and BSI Connect
SCREEN Intelligence



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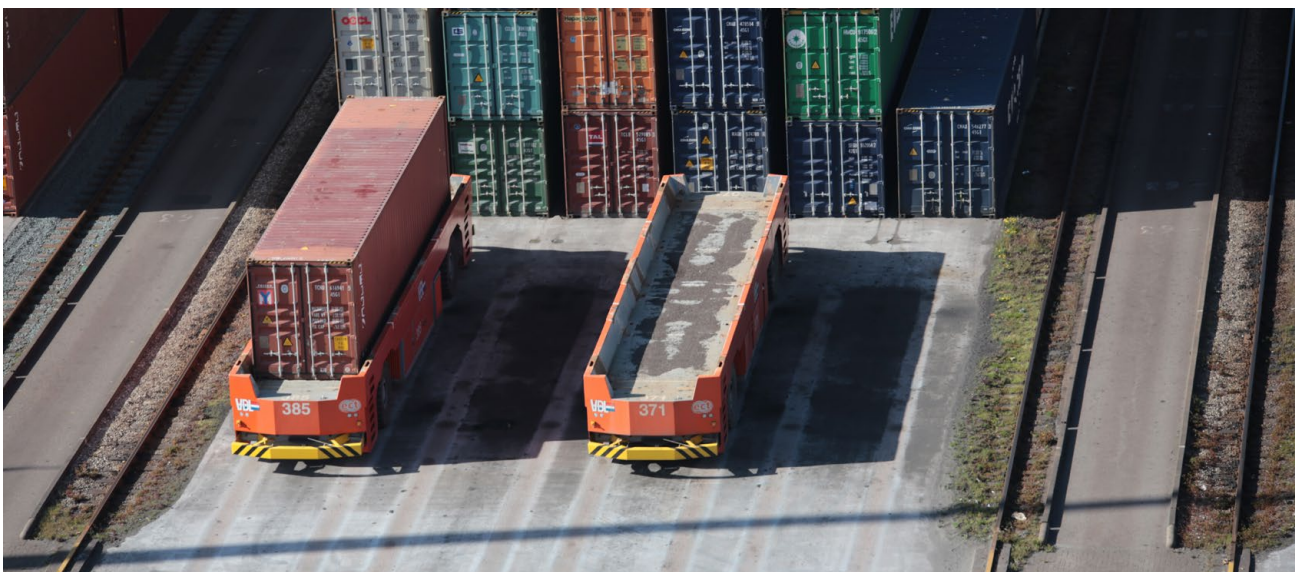


INTRODUCTION

BSI publishes this report in coordination with TT Club. BSI Supply Chain Services and Solutions is the leading global provider of supply chain intelligence, auditing services, audit and risk management compliance solutions, and advisory services. BSI's charter is to help corporations, governments, and associations identify, manage, and mitigate global supply chain risks and maintain world-class governance, risk, and compliance programs. BSI's holistic supply chain risk management suite is designed to predict and visualize risk and develop robust risk mitigation and compliance management programs to protect global supply chains, brands, and reputation. BSI's intelligence-infused supply chain solutions and global network empower the client to understand global supply chain risk with unequalled precision.

TT Club is the established market-leading independent provider of mutual insurance and related risk management services to the international transport and logistics industry. The Club's services include specialist underwriting, claims management and risk and loss management advice, supported by a global office network. TT Club's primary objective is to help make the industry safer and more secure. Established in 1968, TT Club has more than 1200 Members, spanning owners and operators, ports and terminals, and logistics companies, working across maritime, road, rail, and air. Members range from some of the world's largest logistics operators to smaller, bespoke companies managing similar risks. The Club is renowned for its high-quality service, in-depth industry knowledge and enduring Member loyalty. It retains more than 95% of its Members yearly, with some having chosen to insure with the Club for over 50 years.

The Transported Asset Protection Association (TAPA) is a not-for-profit industry association that helps Manufacturers/Shippers and Logistics Service Providers minimise losses resulting from cargo thefts and to increase the security and resilience of their supply chains. Today, in the Europe, Middle East & Africa (EMEA) region, the Association provides a host of certifiable, independently-audited industry Standards for facilities, trucking operations and secure parking as well as training. The TAPA EMEA Intelligence System (TIS) also provides the latest and historic recorded incident intelligence, enabling more secure route planning by helping members understand when, where and how criminals are targeting supply chains, and the products most frequently stolen. The Association strongly advocates the reporting of all cargo thefts to increase industry knowledge of risks and to assist companies' loss prevention strategies. TAPA EMEA's President and CEO is Thorsten Neumann. TAPA EMEA has contributed to the Europe, Middle East & Africa content of this report.

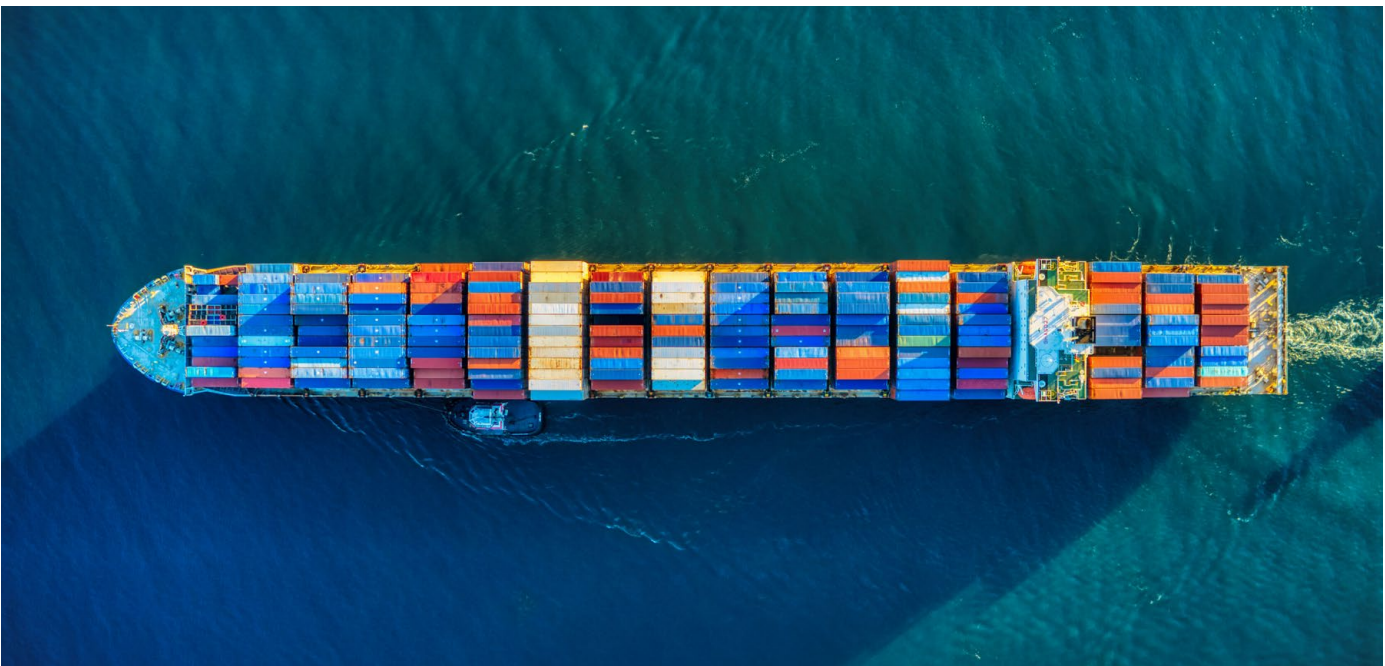


GLOBAL CARGO THEFT TRENDS

In 2022, similar to 2021, BSI, TT Club and TAPA EMEA recorded fewer cargo theft incidents globally. Despite this year-on-year decline in recorded incidents, we are tracking a steady increase in criminals targeting basic goods like food and beverage, automotives and truck parts, and fuel. This is in large part due to the macro-economic impact of inflation, or the loss of purchasing power, on criminal patterns. Parallel to this gradual shift in the theft of basic goods, and sustained theft of higher-valued goods like electronics, we are also tracking a shift in theft types. In 2021, cargo crime was characterized by long idle times and cargo at rest, whereas in the second half of 2022, we are tracking a return to pre-pandemic levels as global trade volumes slow. This translates to easing supply chain disruptions that piled up over the pandemic and less cargo waiting at ports and in-transit. As the volume of goods moving slows down and port congestion eases, there is a consistent trend of thefts from facilities and increases in thefts from container/trailers juxtaposed to global drop offs in hijackings. This is only further exacerbated in countries experiencing serious social unrest, like Peru and Bolivia, where cargo is halted, and we are tracking a subsequent drop-off in hijackings. As the delays that defined 2021 and early 2022 ease, so does theft at unsecured parking lots or container yards near port facilities.

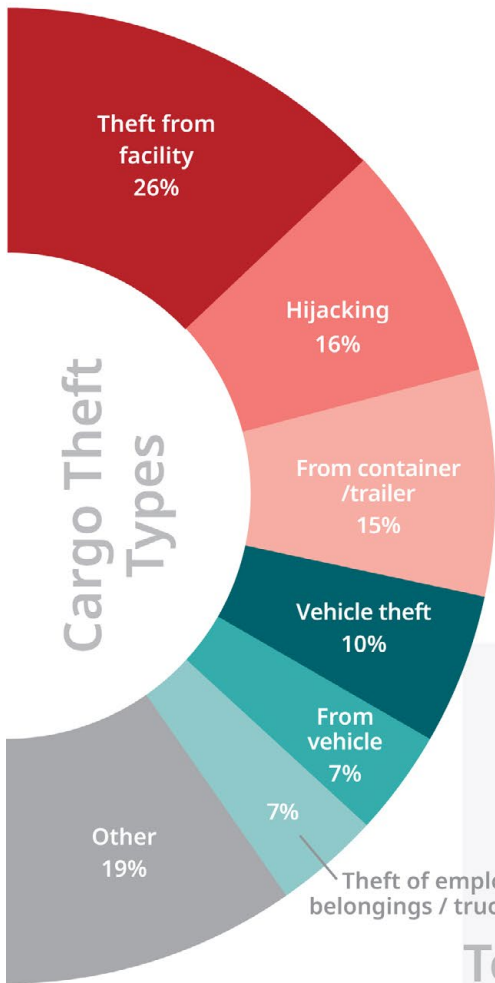
This report highlights the cargo crime trends that characterized 2022 supply chains and simultaneously provides organizations with mitigation recommendations to combat these threats to better anticipate emerging threats in 2023. BSI and TT Club have identified themes to better capture the 2022 risk environment and define how they will likely manifest in 2023 – how crime patterns have shifted as criminals adapt to inflation, lessened port congestion, an evolving logistics landscape, and new fraudulent methods to tamper with and steal cargo.

To explore these themes, we will present several case studies, looking for example at how social unrest in Latin America has shown to be a weakness for companies operating there, particularly in Chile, Peru, and Brazil. We will also unpack how sophisticated criminal organizations in South Asia are infiltrating supply chains and utilizing fraudulent practices like fictitious pickups to target cargo in-transit. As we look ahead, we provide mitigation recommendations throughout the report for the themes we will dive into.

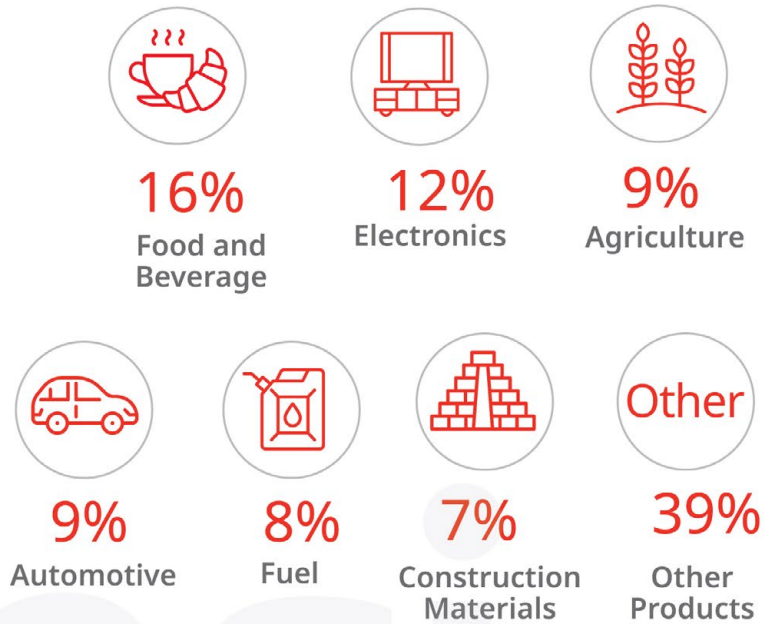


Global Cargo Theft Trends 2022

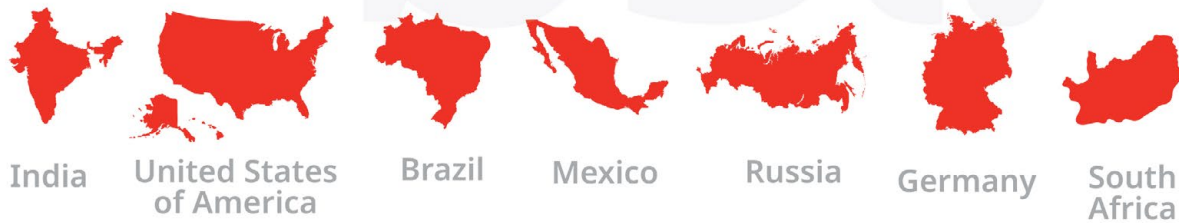
Based on recent incident data via collaboration and partnerships with law enforcement, government, non-government, commercial partners, trade associations, open-source media reports, and input from BSI advisors and expert consultants



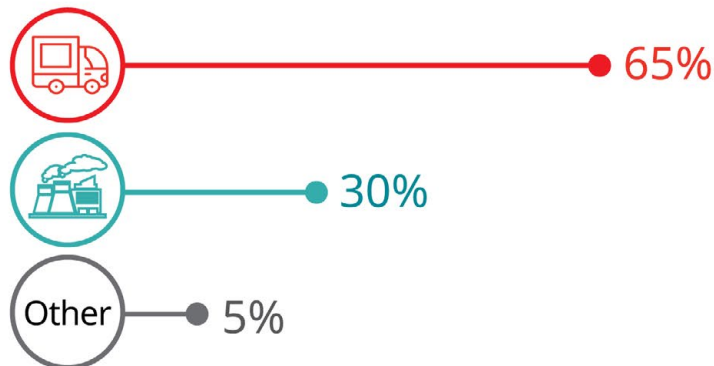
Top Commodities Stolen



Top Countries for Cargo Theft



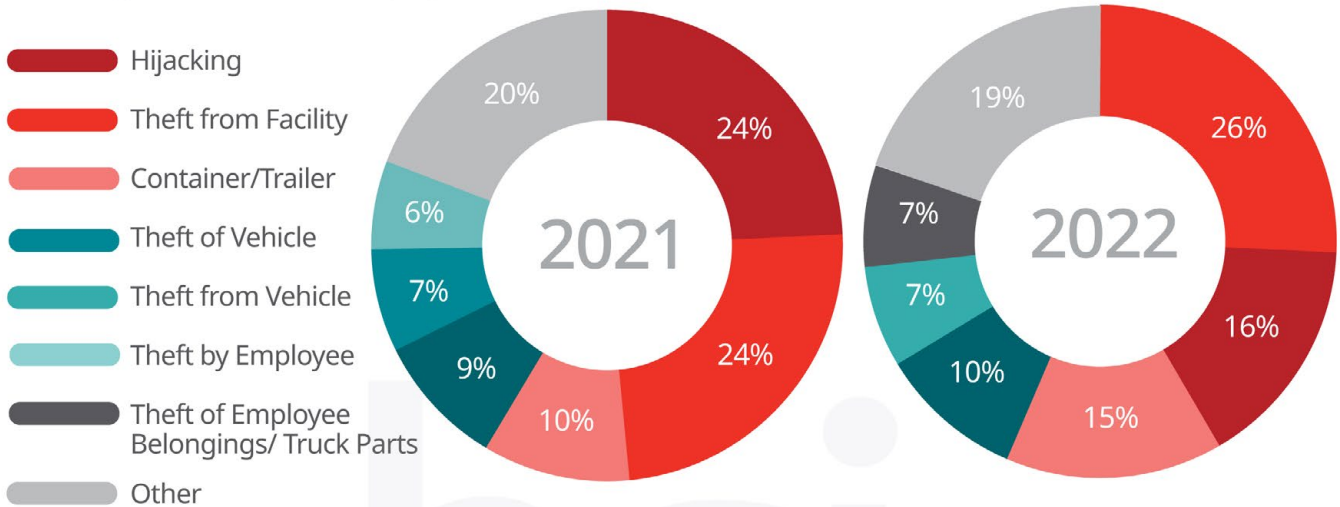
Modalities of Theft



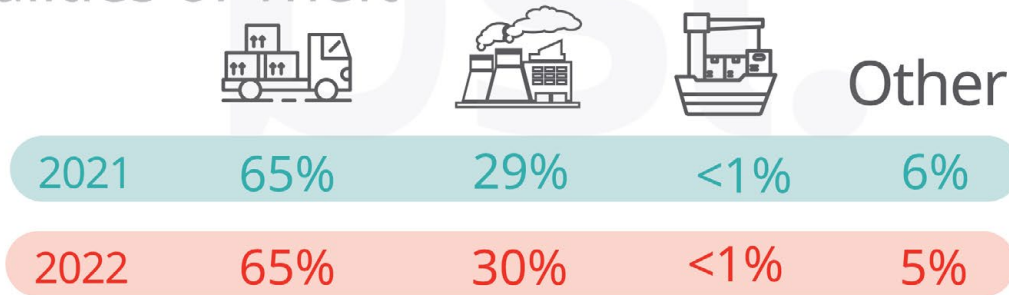
Global Theft Trends 2021 vs 2022

Based on recent incident data via collaboration and partnerships with law enforcement, government, non-government, commercial partners, trade associations, open-source media reports, and input from BSI advisors and expert consultants

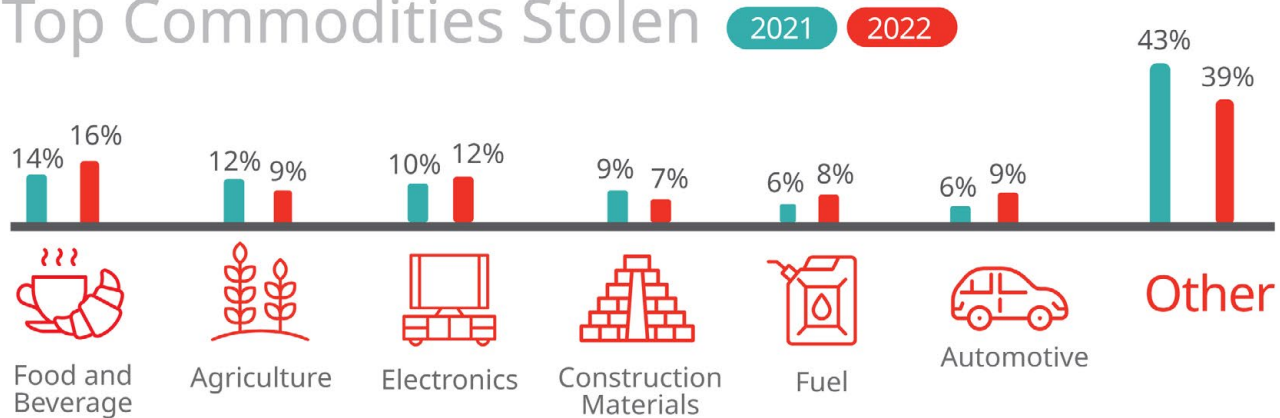
Cargo Theft Types



Modalities of Theft



Top Commodities Stolen



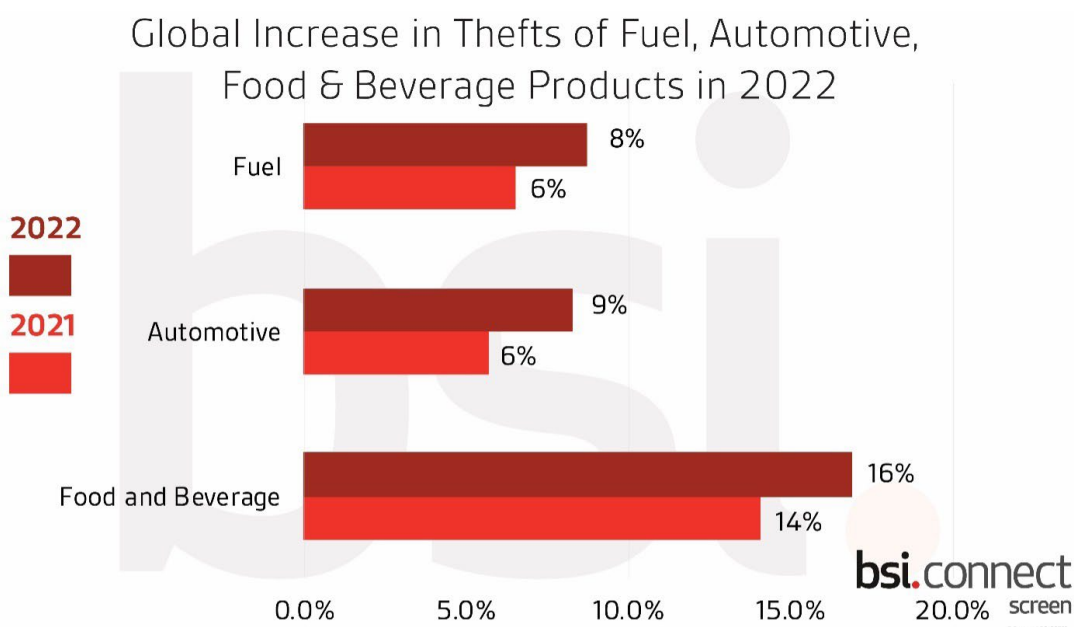
INFLATION POTENTIALLY DRIVING EVOLVING CRIME PATTERNS GLOBALLY

2022 was characterized by upticks in food and fuel prices relative to changes in crime patterns as extraneous events like the pandemic and the war in Ukraine coupled with geopolitical factors like government spending and slow policy responses, driving inflation globally to its highest levels since 1982 in some countries.

In H2 2022, we tracked inflation, or the loss of purchasing power over time, up to its highest level in decades for many advanced economies, including the United States, the United Kingdom, Sweden, and Canada. As a result, basic goods, like fuel and food, are up globally for recorded cargo theft incidents this past year. This is in part due to inflation, but also due to severe weather, rising energy costs, and the war in Ukraine. Take the United States for example. In the US, the consumer price index (CPI) rose 0.4 percent in September and the year-over-year increase now stands at 8.2 percent. In the past year, basics like food prices have risen 10.8 percent, and oil prices have risen 23.9 percent.

While consumers are gradually spending less money on goods and more on services, the year-over-year average is still high when compared to the past 3 years. This can be indirectly linked to crime as data from the 14th to the 20th century shows that high crime rates, particularly violent property crime, increased with inflation and fell with stable prices.

To begin, consumers tend to buy cheaper goods as the cost of goods becomes inflated. So, beyond the loss of purchasing power, other consequences of inflation include shadow economies. This process is also known as “trading down” and oftentimes incentivizes a black market, or a demand for illicit goods, at a cheaper price. This demand for illicit goods or stolen goods, in turn, incentivizes property crimes like burglary, theft, and robbery. As a result, we are tracking sustained upticks in vandalism and looting in countries like Mexico, South Africa, and Peru, which have experienced a rising cost of living with an already heightened security environment and risk of cargo theft.



Take the global statistics on thefts of food and beverage, fuel, and automotive as an example. In 2020, fuel accounted for roughly 5.5 percent of total recorded incidents, but this increased to 5.8 percent in 2021 and 8 percent in 2022. For instance, in the United States, in Q1 2022, with the rise in fuel prices, there was a subsequent uptick in criminals targeting the fuel commodity. In fact, in Q1 2022, petroleum/fuel accounted for 12 percent of recorded cargo theft incidents in the United States, and 9 percent of cargo theft incidents recorded globally.

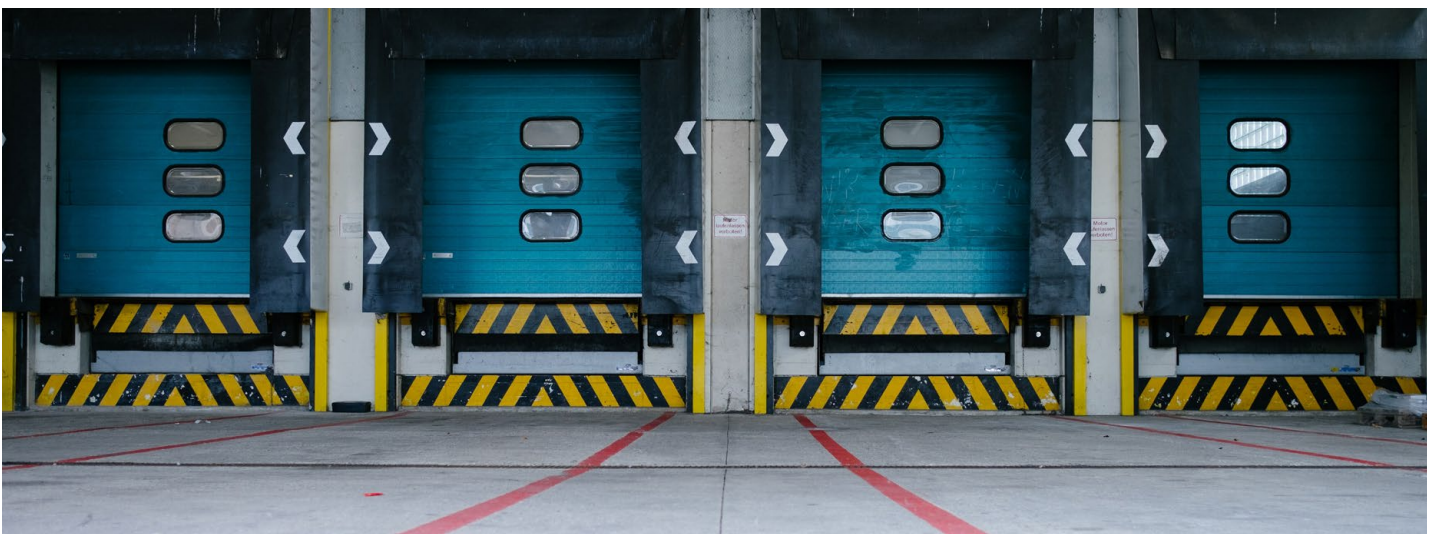
Similarly, globally, food and beverage products accounted for 14.4 percent of total recorded incidents in 2020. In 2021, this number decreased to 13.9 percent before increasing in 2022 to approximately 16.4 percent (~16 percent) of total recorded incidents, making food and beverages the top product stolen this year. In Europe, for example, food and beverage experienced the greatest percentage increase in thefts relative to other product types in 2022 compared to Q1-3 2021, meaning that food and beverage thefts increased more than any other product type in the recorded period. This comes as food and beverage prices in general increased 12.4 percent over the past year in the Eurozone.

Automotive products similarly saw an increase in thefts in 2022, from 4.1 percent of total recorded incidents in 2020, to 6 percent in 2021, and 9 percent in 2022. Meanwhile, electronics have remained a top product stolen from 2019 to 2022, accounting for 8.5 percent of total recorded incidents in 2019, 9.3 percent in 2020, 9.5 percent in 2021, and 12 percent in 2022.

While actual inflation has eased in countries like the United States, the cost of living remains relatively high and the loss of purchasing power for basic goods relatively significant. For this reason, and other factors like product shortages curtailing the production of new vehicles, crude oil inventories remaining low, and the war in Ukraine and natural disasters leading to increased food prices, we will likely continue to track a large number of thefts of food and beverage products, automotives and truck parts, fuel, agricultural goods, and electronics.

While prices for basics like food tend to be extremely volatile, oscillating from sharp rises to steep declines, in the United States and other advanced economies like Canada and the United Kingdom, food prices are likely to continue to increase in the next quarter, carrying into H1 2023. Various extraneous events contribute to this expected rise in prices. These include the war in Ukraine, as Ukraine and Russia are both big exporters of wheat and corn; natural disasters, as droughts and fires in the West damaged crop production this year; and government responses, like rapid growth in the money supply for the past two years in countries like the United States.

This is significant for cargo crime trends looking ahead because price hikes for basic goods like food and fuel could potentially cause some of the trends we saw throughout 2022 to carry into 2023 for smuggling and cargo theft.



Impact of Cost-of-Living Crisis on European Crime Patterns

In Europe, similarly to trends observed globally, rising food and beverage prices made these products more attractive to thieves in 2022. Food and beverage thefts increased significantly between 2021 and 2022, accounting for 11.8 percent of total thefts in 2021 and 14.8 percent of thefts in 2022. This represents nearly a 25 percent increase in the number of recorded food and beverage thefts year-over-year. Concurrently, inflation for food products rose sharply in Europe over the past year. In December 2022, the inflation rate for unprocessed food, alcohol, and tobacco in the European Union (EU) reached 14.3 percent as an annual rate. Between 2021 and 2022, data also shows that the average price of agricultural goods in the EU increased by 24 percent, with grains, eggs, and milk accounting for the largest increases.

Indirectly, the cost of living crisis has also had a significant impact on cargo disruption as wages, in general, have not increased proportionally to inflation. Labor strikes in which wages were a noted grievance increased in 2022, accounting for more than half of all strikes. In 2021, wages were a noted grievance for only approximately a third of all labor strikes. These labor strikes related to the cost of living crisis have, at times, occurred on a national scale, disrupting multiple modalities of cargo. Some examples include multi-day strikes at major ports, including those at the Ports of Felixstowe, Liverpool, Hamburg, Bremerhaven, and Wilhelmshaven, as well as national rail strikes in countries such as the United Kingdom, the Netherlands, and Belgium.

Cargo disruption in general has the potential to increase the risk of theft for shipments. Conceptually, a successful cargo theft involves three components: motivation, opportunity, and ability. Cargo at rest for longer periods of time, which can occur when labor strikes disrupt normal transport operations, may provide thieves with more opportunities to steal products, leading to increased vulnerabilities. At the same time, diminishing purchasing power for necessary goods, such as food, can increase motivation for theft.



Fuel thefts disrupt supply chains across EMEA

A significant year-over-year rise in the number of fuel thefts recorded in the Europe, Middle East & Africa (EMEA) region was one of the most prominent trends recorded by TAPA EMEA in the last 12 months driven by the impact of the war in Ukraine on global oil prices and the cost-of-living crisis affecting consumers in many countries.

The Association gathered intelligence on fuel losses in 28 countries across EMEA, with Germany and the United Kingdom accounting for 72% of recorded thefts. Demand for such a basic, every day commodity resulted in a huge spike in the number of lower volume fuel thefts, most likely the work of individual criminals targeting trucks in unsecured parking locations. Higher value fuel crimes also signalled the involvement of bigger Organised Crime Groups, notably thefts from fuel storage depots, such as:

- €323,000 -loss recorded in Limpopo province in South Africa
- €300,000 - fuel stolen from a Maritime Transportation Facility in Plymouth in the south west of the United Kingdom
- €150,000 – diesel taken from a facility in Dorges, northern France

Aside from the financial loss and immediate interruptions to operations caused by fuel losses when trucks are targeted enroute, some vehicles also suffered damage to fuel tanks as thieves tried to siphon off diesel, adding further cost and time delays for transport operators. Fuel thefts recorded by TAPA EMEA, outside of the high value crimes referenced, ranged from as little as 20 litres to over 43,000 litres, but average losses were between 200-500 litres over the year.

While lower volume fuel thefts are likely to be for an offender's own use, the ease with which these crimes can often be completed might see this type of crime continue to be popular even after fuel prices at gas pumps return to a more normal and acceptable level, TAPA EMEA said.

Criminals Adapting to Evolving Logistics Landscape – A look at product shortages and easing congestion

In 2022, the logistics landscape evolved from port congestions and product shortages experienced during the previous two years, allowing supply chains to ease from past strains. While logistics centers were able to fill and port facilities no longer experienced backlogs, cargo theft evolved with easing congestion. Additionally, as inflation became a global concern, basic goods, including food and beverage, and fuel, became targeted commodities. Furthermore, labor strikes and social unrest hindered the ability of cargo to move efficiently in some regions, with unrest halting cargo entirely, creating regional shifts in crime patterns.

After two years of elevated port congestion, 2022 became a year of easing freight bottlenecks and increasing intermodal transport. Relief at the ports allowed cargo to fill logistics warehouses and distribution centers worldwide, while also changing the criminal landscape of cargo theft towards cargo facilities. BSI and TT Club followed this trend as hijackings declined 33 percent globally, totaling 16 percent in 2022. Meanwhile, we saw an increase in cargo thefts at facilities,

increasing from 24 percent in 2021 to 26 percent in 2022. Examples of this can be found globally, including in Stiatco, Italy, where armed thieves stole millions in IT equipment and other electronics cargo from a logistics factory. The violent event involved a group of ten criminals who blocked the factory's access roads with vehicles before burning them and spreading nails along the roadway to disable chase vehicles and hinder apprehension.

Additionally, we saw examples of large-scale thefts driven by inflation, a lack of goods in the supply chain, and market demand. This included the theft of food and beverages and agriculture. In June 2022 in Brazil, authorities uncovered a theft scheme involving a criminal group who falsified company credentials to order fertilizer and used unsuspecting third-party delivery drivers in a fictitious pickup. The criminals stole a reported 25 tons of fertilizer, totaling \$3.9 million USD. Additionally, Brazilian police recovered 50 cargo trucks from a separate cargo theft scheme that specialized in stealing food and grain cargo in several Brazilian states. The criminal gang altered VIN numbers before reselling the vehicles and the cargo.

Thieves in several regions evolved their crime patterns due to the complex social and global environment. These events included looting and thefts from vehicles, as well as labor strikes and social unrest disrupting the transportation of goods by container. Reports of these events were seen in Mexico during student protests, as well as in Colombia when striking labor workers from a nearby mine looted 30 cargo trucks trapped due to an ongoing strike. In the short term, we anticipate additional events of looting and criminals targeting cargo at rest as social conflict and labor strikes continue to trend into 2023. As reported, decreases in hijackings will likely continue in the short term, with high-risk countries, including Brazil, India, Mexico, and South Africa, most at risk.

Rise in lower value cargo crimes a possible consequence of Europe's cost-of-living crisis

Cargo crime analysis is often dominated by the highest-value losses from supply chains. In 2022, average losses for major incidents involving products worth €100,000 or more produced an average loss of €565,000, according to the Transported Asset Protection Association's (TAPA) Europe, Middle East & Africa (EMEA) region.

In 2022, the biggest single loss reported to the TAPA EMEA Intelligence System (TIS) involved the theft of miscellaneous goods with a value of €17.8 million from a facility in Norresundby in Denmark.

However, with a cost-of-living crisis raging across many parts of the world, the past 12 months has seen considerable growth in crimes involving far lower volumes and values, raising concerns that higher prices of both every day and luxury items may be breeding a bigger community of first-time cargo thieves, as well as a consumer market in which buyers looking for bargain prices might be less concerned about a product's origin.

Similarly, some employees working within supply chains appeared to be finding the temptation of being surrounded by highly desirable products too great to ignore. In 2022, the Association recorded a 332% year-over-year rise in the number of cargo thefts with an Internal M.O. as it gathered intelligence of these types of incidents in 37 countries across the EMEA region.

This trend also appears to be supported by financial data for reported thefts from supply chains in the region over the past calendar year. Over 75% of cargo losses stating a value recorded a loss of €30,000 or less, according to TAPA EMEA's incident database. These lower value crimes are rarely the work of Organised Crime Groups.

Overall, across the whole of 2022, the Association recorded product thefts from supply chains in 78 countries.

RISK OF FRAUDULENT GLOBAL PRACTICES LIKE ROUTE DIVERSION AND FICTITIOUS PICKUPS

According to BSI and TT Club data collected throughout 2022, approximately 21 percent of all theft incidents recorded globally involved some form of insider participation, excluding incidents where involvement was unknown. This risk for insider participation was more pronounced in some regions.

In Europe, 26 percent of cargo theft incidents involved some form of insider participation in 2022. For incidents involving insider participation in 2022, Russia was the top country of concern, accounting for roughly 58 percent of recorded incidents, followed by France (six percent), Italy (five percent), Germany (four percent), and Romania (four percent); cargo thefts in these countries typically included elements of either supply chain corruption or organized crime. The locations most at risk for theft in Europe for 2022 included warehouses, making up 54 percent of recorded incidents, followed by freight facilities, accounting for 14 percent, production facilities (ten percent), and cargo that was in-transit (ten percent).

In Asia, thefts involving some form of insider participation accounted for roughly 31 percent of recorded incidents in 2022. The top countries of concern in Asia for incidents involving insider participation in 2022 included India, accounting for roughly 52 percent of recorded incidents, followed by Indonesia (23 percent), Vietnam (7 percent), and Bangladesh (6 percent). 50 percent of thefts involving insider participation included goods stolen from warehouses. 23 percent of insider thefts involved goods stolen while in-transit. The risk for insider participation was also a concern, albeit to a lesser extent, for locations including production facilities (8 percent), gas stations (3 percent), fuel infrastructure (3 percent), delivery sites (3 percent), unsecured roadside parking (2 percent), and ports (2 percent).

Meanwhile, in Latin America, the top countries of concern for insider theft in 2022 included Brazil, by a large margin, accounting for 65 percent of recorded incidents involving insider participation, and Argentina, which constituted roughly 21 percent of incidents. Historically, Brazil, Argentina, Colombia, and Peru are typically the top countries in South America most susceptible to insider participation.



Industries at the greatest risk of insider participation in the Latin American region include Agriculture, Food & Beverage, Construction Materials, and Fuel. Thefts involving elements of insider participation most frequently occurred while goods were in-transit, stored at warehouses, delivery sites, and ports.

One incident that underscores the level of sophistication associated with thefts involving insider participation occurred in Brazil throughout 2022. In late September of last year, authorities uncovered an operation involving some 79 people believed to be part of a criminal association responsible for the diversion and theft of over six million kilograms of soy and corn, costing various transport and insurance companies \$3 million USD. This criminal association enticed truck drivers with payments averaging around \$4,700 USD as a means of getting them to divert loads of cargo destined for the port of Miritituba or Rondonopolis. The criminal group then falsified documentation, including unloading tickets, to hide the illicit activity.

Similar to 2020 and 2021, data from 2022 indicates that insider participation remains a persistent threat to cargo in the Middle East and Africa and will likely continue into 2023. Countries like South Africa, Egypt, Syria, Israel, and Lebanon experienced the most prominent risk of insider participation and warehouses and in-transit represent top locations for theft. While most thefts are opportunistic, some have involved advanced planning with copied keys and false replacements for stolen products. Products most frequently stolen in incidents involving insider participation in this region included automotives, fuel, medical devices and supplies, and agriculture.

A combination of general price hikes for goods, increasing costs to transport those goods, the ongoing threat from COVID-19 and the conflict in Ukraine will further disrupt global supply chains in 2023 and could create an environment more conducive to insider theft.

A Look at Fraudulent Practices in Europe in 2022 and Carrying into 2023

Fictitious pickups are generally not common in Europe, typically accounting for less than two percent of total thefts. However, these thefts can impact a variety of product types, including Food and Beverage, Manufacturing Materials, Cosmetics and Perfume, Sports Equipment, Major Appliances, Tobacco, and other types of goods. In Europe, nearly half of fictitious pickups recorded between 2021 and 2022 occurred in Russia, with smaller numbers taking place in Italy, Ukraine, Turkey, and Poland.

Fictitious pickups often involve deception by digital means. In some cases, thieves may create entire phantom forwarding companies to undertake seemingly legitimate transport operations. In an incident in Germany, a company in the Upper Palatinate region commissioned one such phantom company for multiple transport orders. Initially, the company carried out several orders without committing any thefts. However, upon receiving an order to transport four truckloads of high-quality bicycles worth more than \$1.7 million USD, the company stole the order.

In another example of a sophisticated digital scheme, a shop in Bologna, Italy lost nearly \$15,000 USD worth of tobacco when a new, unknown “employee” assisted with unloading a typical tobacco delivery. Shortly thereafter, the shop owner received a fraudulent call from a purported employee at the distributor that sent the tobacco shipment. In the phone call, the fraudulent representative stated that there had been an error with the delivery documentation. To correct the documentation, the shop needed to return the tobacco shipment, and the distributor would send back the correct shipment later in the day. The same, unknown “employee” that had previously unloaded the tobacco returned to the shop and repacked the goods for return to the distributor, stealing them.

Though this incident accounts for a relatively small loss, scammers using this technique have successfully targeted even the most secure supply chains, namely, those in the pharmaceutical industry. Reports indicate that similar schemes have resulted in significant product losses for pharmaceutical companies in the United States. Scammers using this scheme and others have reportedly been able to divert \$4.5 million USD in products, and over \$3 million USD in attempted product diversions have been recovered.

Other types of fictitious pickups involving digital means can be more straightforward. In cases that happened in St. Petersburg, Russia and Minsk, Belarus, attackers simply responded to advertisements from various websites, stealing the cargo they were hired to transport.

Regardless of their level of sophistication, these types of thefts underscore the importance of trust in suppliers. In an increasingly digital world, trust in one's suppliers stands as a critical line of defense against fraud and theft in supply chains.

CASE STUDY: ROLE OF CRIMINAL ORGANIZATIONS INFILTRATING SUPPLY CHAINS TO COMMIT IN-TRANSIT THEFTS IN SOUTH ASIA

Criminal groups operating in Asia have become increasingly sophisticated and problematic in recent years in regard to infiltrating supply chains to steal in-transit cargo, particularly in countries like India, Indonesia, Vietnam, and Bangladesh. This form of theft can be especially frustrating for companies because, oftentimes, they do not become aware the theft has taken place until the cargo reaches its final destination.

A common modus operandi leveraged by these criminal groups involves either paying or coercing transport truck drivers to divert from their normal route to alternative locations where criminals can then offload a portion of the cargo to sell for lower rates. In some instances, thieves have stolen cargo without breaching container seals and replaced the missing weight from the stolen goods with sand or other material to avoid detection.

A 2022 incident in Tambaram, India, where thieves stole \$118,000 USD of pharmaceutical materials (4,800 kg out of a 14,400 kg shipment bound for Germany) illustrates the risk of sophisticated infiltration attempts. Police believe a group of seven criminals had been conspiring with container truck drivers transporting goods from private companies in the area to help commit thefts over several months. The criminal group allegedly paid the drivers to temporarily hand over their trucks to the group, the trucks were then taken to a private yard in Minjur. The thieves then unscrewed bolts from the container doors to preserve the security seal before closing the containers, returning them to the drivers, and selling the stolen goods.

In addition to the theft of pharmaceutical materials, the group also stole various other goods, including 4,800 pairs of shoes that came from Ambur, \$62,700 USD worth of keyboards from Thiruporur, and 1,000 pairs of shoes from a factory in Tada, Andhra Pradesh.

CASE STUDY: ROLE OF CRIMINAL ORGANIZATIONS IN INFILTRATING THE SUPPLY CHAINS IN LATIN AMERICA

In 2022, South America experienced labor strikes, rising social unrest, and inflation. These compounding factors created an environment ripe for shifting cargo theft trends within the region, including a decrease in the top theft type of hijacking due to a decrease in cargo movement, from 62 percent in 2021 to 45 percent in 2022, and an increase in thefts from facilities, from 7 percent in 2021 to 15 percent in 2022.

Chile, in particular, experienced a steep rise in cargo theft from 8 percent in 2021 to 18 percent in 2022. BSI and TT Club tracked the country's rising theft throughout the year, including thefts of basic goods, rising facility thefts, and violent copper hijackings. Incidents were seen in the greatest concentration in the northern and central areas of Chile, with the regions of Metropolitana, Valparaiso, Antofagasta, Biobio, and Araucania experiencing the highest percentage of thefts throughout the year.

The tactics and trends of Chile's cargo theft landscape shifted, as thieves targeted the facility modality at a greater rate, increasing from 7 percent to 25 percent from 2021 to 2022. In line with this shift, we saw the truck modality decrease in percentage by 30 percent from the previous year, with 2022 truck thefts accounting for 65 percent. Additionally, rail thefts increased to 8 percent for the year, with notable heists occurring along freight lines in northern Chile.

Chile experienced significant hijackings along freight lines in the northern regions, with sophisticated gangs of cargo thieves halting freight lines to steal large copper cargos with boom trucks and violent tactics. These thefts were often violent and generated significant concern for rail employees, transporters, and the mining sector. Copper transports along the railways were halted for a period, and a state of exemption was enacted in Antofagasta, where rail thefts most often occurred. A major mining railway operator reported over 70 cargo thefts along the railways in the past three years alone. Safety and police forces increased security in the region and along the cargo lines, including air support in areas where trains have limited communications.

In addition to violent rail thefts, BSI and TT Club reported increased thefts from facilities in central Chile, including transit depots and container terminals. Theft included fraudulent pickups with basic goods targeted, including food and beverages, as well as apparel, and electronics. Many of these thefts became increasingly volatile and violent throughout the second half of 2022, leading ports and logistics centers to proactively close during the third shift. Although halting the transport of cargo daily would hinder the continued movement of trade within the country's supply chain and slow the export of goods into the global market, logistics facilities felt the need to prevent bad actors from accessing cargo during vulnerable times.

Looking ahead in the short to medium term, cargo theft gangs will likely continue to target logistic facilities in Chile. A predictive example is the most recent armed theft at the San Antonio Port in Chile's central region. In January 2023, armed thieves cut cameras before ambushing employees and security personnel to steal 13 shipping containers containing copper from the facility. Additionally, an incident at the end of January reported a group of suspects disguised as employees kidnapping a security guard from a warehouse in Talcahuano before stealing three containers of salmon.

Case Study: South Africa – the ‘wild west’ for supply chains in EMEA

While cargo crimes were committed across 78 countries in the Europe, Middle East & Africa region in 2022, based on intelligence reported to TAPA EMEA, incidents in South Africa stood out in terms of frequency, violence, and value, and remain one of the biggest concerns for all stakeholders operating in the country.

Even though the majority of cargo thefts in the EMEA region still go unreported annually because they are absorbed into more generic vehicle and commercial crime categories, South Africa is still seeing thousands of attacks on supply chains each year. These attacks often involve large gangs of offenders with firearms, and often result in drivers, security guards and law enforcement officers losing their lives after getting innocently caught up in a cargo crime or in pursuit of suspects.

Crimes are also widespread across all nine of South Africa’s provinces, although the Association recorded over 60% of attacks on facilities and trucks in Gauteng province. Until other international data proves otherwise, South Africa remains the undisputed ‘truck hijacking’ capital of the EMEA region, with criminals often posing as police or traffic officers to bring cargo vehicles to a stop to enact crimes.

In the most impoverished parts of the country, successful attacks on supply chains can produce a rich financial return. Major crimes reported to TAPA EMEA in South Africa in 2022 produced an average loss of €1,093,000, mostly involving truck hijackings or cash-in-transit robberies. Other products regularly targeted included car parts, clothing and footwear, cosmetics and hygiene, food and drink, metal, and tyres.

Cargo theft losses reported to TAPA EMEA in South Africa in 2022 included:

- €5,994,652 – clothing and footwear stolen from an Origin Facility in Durban
- €5,458,860 – cobalt hydroxide taken from a warehouse facility in Gauteng province
- €4,745,897 – theft of car parts en route in Eastern Cape
- €2,250,000 – trailers/goods stolen from an Origin Facility in Kempton Park, Gauteng
- €2,161,407 – car parts stolen in Eastern Cape
- €1,185,824 – 1,540 cases of liquor stolen in a truck hijacking in Western Cape
- €575,580 – copper stolen in a truck hijacking in Johannesburg
- €486,316 – theft of car parts in Eastern Cape
- €356,350 – 38 tonnes of copper rods and 4 trailers stolen in Ehlanzeni, Mpumalanga
- €323,908 – fuel taken from an Origin Facility in Limpopo
- €120,000 – groceries stolen from a truck on the N2 highway in Gqeberha

South African Police Service (SAPS) data alone revealed a 9.8% year-over-year rise in truck hijackings in Q4 2022, with a total of 492 incidents over this 92-day period. Overall, TAPA EMEA recorded over €29 million in product losses from supply chains across the country in 2022 – a figure based on only 6% of all reported cargo crimes sharing a loss value.

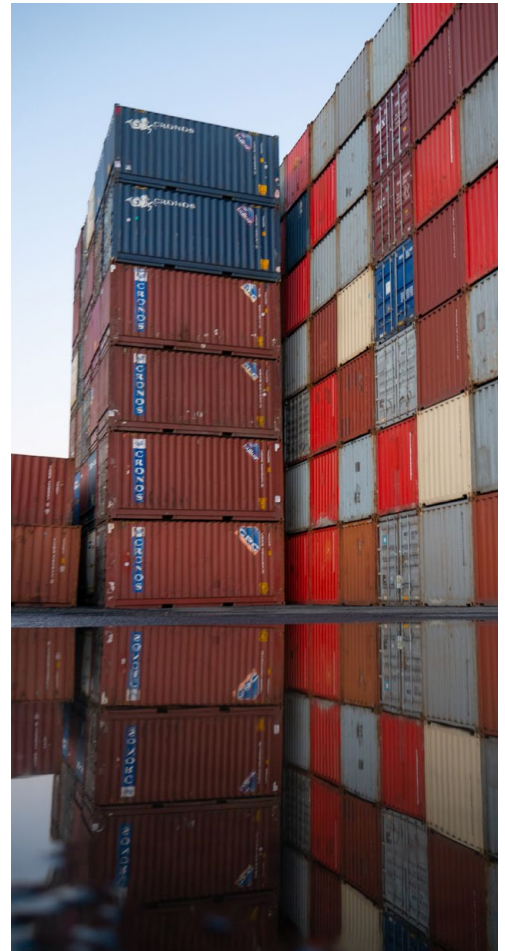
Recommendations from BSI's Principal Consultant for Supply Chain Security, David Fairnie for mitigating these risks



BSI and TT Club collaborated on this report to analyze threats faced by supply chains through 2022 and beyond. We offer these risk mitigation techniques so organizations can proactively understand their risk and build a resilient supply chain that is ahead of the criminal tactics, trends and emerging threats detailed in this report.

Recommended Mitigation to counter Fictitious Pick-up Threat:

- Implement a secure verification process to confirm the identity of drivers and other personnel involved in picking up and transporting goods from your facilities. If possible, set up pre-alerts in advance to get the driver's name, trailer number, and license plate number before each pickup
- Check driver IDs and record information about drivers – take pictures/copies of IDs if that is allowed. Check to make sure the ID is not expired and matches the actual driver transporting the goods
- Work to verify the trucking company by calling the phone number they have listed, visit the website, and checking to make sure the number they are using is not for a company that recently went out of business
- Use tamper-evident seals or other anti-tampering devices to ensure that goods cannot be removed or replaced during transport.
- Conduct regular background checks on employees and third-party suppliers involved in the supply chain to identify potential security risks. Make sure all carriers undertake employee background screening, including criminal history where possible.
- Monitor the supply chain using GPS or other tracking technology to ensure that goods are transported to their intended destination and not diverted to unauthorized locations.
- Implement a two-factor authentication policy for all shipments, requiring confirmation from the shipping and receiving parties.
- Train employees and contractors to recognize and report any suspicious activity or behavior that may indicate attempted theft or other security breaches. Train people in the dispatch/shipping office to recognize suspicious behavior - if the driver looks suspicious, shows up far too early, is wearing sunglasses/hoodie/ etc. inside, something is probably wrong
- Use data analytics and machine learning to identify patterns of fraudulent online activity or behavior in the supply chain and flag potential risks.



- Conduct regular security audits of your supply chain to identify vulnerabilities and areas for improvement.
- Implement a robust incident response plan that outlines procedures for reporting and responding to security incidents, such as suspected theft or tampering.
- Establish partnerships and collaboration with law enforcement agencies, industry associations, and other stakeholders to share information and best practices and promote greater transparency and accountability in the supply chain.

Recommended mitigation to counter the “Insider Threat” risk in the supply chain:

- Conduct thorough background checks on all employees and third-party vendors involved in the supply chain to identify potential insider threats.
- Develop a comprehensive access control policy that limits access to sensitive areas of the supply chain to authorized personnel only.
- Implement a policy of least privilege, granting employees and contractors access to only the information and systems they need to perform their job functions.
- Establish a security awareness and training culture among all employees and contractors, emphasizing the importance of vigilance and reporting suspicious behavior.
- Regularly monitor and audit employee and contractor activity in the supply chain to identify anomalous behavior and potential threats.
- Implement a whistleblower protection program to encourage employees and contractors to report potential insider threats without fear of retaliation.
- Implement technical controls such as firewalls, intrusion detection systems, and access controls to prevent unauthorized access to systems and data.
- Conduct regular security awareness training and simulations to help employees and contractors recognize and respond to potential insider threats.
- Establish strong communication and collaboration channels with suppliers and customers to share information and best practices related to supply chain security.
- Implement a robust incident response plan that outlines procedures for reporting and responding to security incidents involving insider threats, including measures to prevent further damage and limit the impact on the supply chain.



These mitigation actions can help to reduce the risk of insider threats and enhance the overall security and resilience of the supply chain. However, it's important to recognize that there is no one-size-fits-all approach to supply chain security, and that each organization must develop a tailored risk management plan based on its specific risks and circumstances.

Recommended mitigation actions to prevent theft from a truck and enhance supply chain security:

- Implement a secure locking mechanism on truck or container doors and ensure these are in good working order before starting transport.
- Use tamper-evident seals or other anti-tampering devices to ensure that the truck's cargo area cannot be accessed without evidence of tampering.
- Install security cameras on the truck and use GPS or other tracking technology to monitor its location and movement throughout the journey. Install cameras near dispatch/shipping/receiving windows to capture images of the driver's face for later ID if something goes wrong
- Train drivers and other personnel transporting the goods to recognize and report suspicious activity or behavior that may indicate attempted theft.
- Use a convoy system to transport high-value or high-risk goods, with multiple vehicles travelling together for added security.
- Conduct regular risk assessments to identify vulnerabilities in the supply chain and adjust security measures accordingly.
- Implement a policy of strict driver vetting and background checks to ensure that drivers are trustworthy and have no history of criminal activity.
- Use a geofencing system to define and monitor the boundaries of the delivery area, triggering alerts if the truck deviates from the pre-defined route.
- Establish partnerships and collaboration with local law enforcement agencies and other stakeholders to share information and best practices and promote greater transparency and accountability in the supply chain.
- Use secure parking areas with video surveillance and other security measures to ensure that trucks are protected when parked overnight or during other stops in the journey.

These mitigation actions can help to prevent theft from a truck and enhance the overall security and resilience of the supply chain. It's important to note that the specific measures used will depend on the nature of the goods being transported, the risks associated with the route and destination, and other factors that may impact the security of the supply chain.



TT Club is the established market-leading independent provider of mutual insurance and related risk management services to the international transport and logistics industry. TT Club's primary objective is to help make the industry safer and more secure. TT Club's Risk Management team is committed to the ongoing development of advice and information underpinning this objective.



This includes:

- Providing support to reduce the risk of claims occurrence
- Promoting 'best practice' opportunities
- Helping to improve risk assessment, mitigation, and control

Theft remains a top five area of claims cost in TT Club's global claims analysis. Analysis of incidents, increased data sharing agreements, collaborations, and widespread dissemination of findings, all serve to improve understanding of the underlying risks. This report demonstrates TT Club and BSI's shared goal of educating the transportation and manufacturing sectors about the dynamic cargo theft risks present globally.

With enhanced awareness of cargo crime trends, the industry will be able to engage in a proactive approach in preventing cargo crime, while minimising the resulting financial loss and brand reputation damage.

HIGHLIGHTING RISK, REDUCING EXPOSURE. ADVISING INSURED, SERVING THE INDUSTRY.



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REDUCING THE RISK OF CARGO LOSSES

The Transported Asset Protection Association (TAPA) was founded in 1997 by Manufacturers and Logistics Service Providers with a mission to minimise losses from their supply chains resulting from cargo thefts.

Today, in the Europe, Middle East & Africa (EMEA) region, TAPA EMEA has a record and growing membership of over 900 companies, also including Insurers, Law Enforcement Agencies and Security Service Providers.

The cost of cargo crime is a major concern for all supply chain stakeholders and can have a detrimental effect for consumers too in terms of delayed orders, product shortages and higher prices. A European Parliament study has previously identified that cargo crime in Europe alone costs businesses more than €8.2 billion per annum, while research by TAPA EMEA in Germany, in partnership with other industry associations, identified national losses and damages exceeding €2.2 billion a year from an estimated 26,000 attacks on trucks annually.

TAPA EMEA's 'by the industry, for the industry' supply chain resilience and cargo security solutions include industry Standards and cargo crime incident intelligence:

Security Standards

TAPA EMEA offers three industry Standards and certification programmes, which are reviewed and updated by its supply chain security members every three years to ensure they are as efficient as possible and fit-for-purpose to provide protection against current and emerging risks. The Standards are:

- Facility Security Requirements (FSR)
- Trucking Security requirements (TSR)
- Parking Security Requirements (PSR)

These are minimum security Standards and are respected as the most effective industry Standards for supply chain security. Further information can be found on the TAPA EMEA website. TAPA EMEA security Standards are now a requirement in many logistics contracts.

Incident Intelligence

The TAPA EMEA Intelligence System (TIS), launched in 2022, is the Association's most advanced data and analysis tool to help combat cargo losses.

Via the TIS dashboard, members can quickly search for current and historic cargo crime incident data, using mapping and routing tools to filter data by a wide variety of topics, including searches for:

- Type of incident
- Location of incident
- Modus operandi
- Value of stolen products
- Products target
- Region
- Country

TIS also integrates information which allows our Manufacturer and Logistics Service Providers to see facilities and trucking operators which have TAPA EMEA Facility Security Requirements (FSR) and Trucking Security Requirements (TSR) supply chain security certifications. They can also search TAPA EMEA'S growing database of secure truck parking locations across the region and identity parking place operators supporting the Parking Security Requirements (PSR) Standard.

Networking and Communication

TAA EMEA also delivers insight and analysis for its members through its annual Face-to-Face and Virtual conferences, intelligence sharing videos and webinars, a monthly digital magazine and incident alerts.

Contact Us

To find out more about TAPA EMEA, the Association's security Standards or how to share cargo theft intelligence, please contact info@tapaemea.org or visit www.tapaemea.org



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Our Services: BSI Connect SCREEN

BSI Connect Screen is an integrated platform that employs a risk-based approach to supply chain risk management programs. It targets the biggest global supply chain threats to help organizations inspire trust and build resilience through data-driven insight. Our platform contains the largest proprietary global supply chain risk intelligence database that looks at more than 20 risk ratings in over 200 countries. BSI Connect Screen provides services and solutions to accelerate your understanding of supply chain risk and gain insight to empower decision making to build a more resilient supply chain.

These services include:

- Custom Intelligence Services
- Powerful, Interactive Risk Mapping
- Daily Updates and Notifications
- Custom Report Builder
- Supply Chain Incident Database
- Connect SCREEN Auditing System
- Advisory Services
- Training Services

Contact BSI Connect SCREEN's Global Intelligence Analysts



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