TOP 5 TRENDS

LABELING & PACKAGING ARTWORK

Loftware™

Connecting and securing the global supply chain

As supply chains have become more global and complex, along with heightened expectations from both businesses and consumers, it's clear there is a greater need for connectedness. This is why today's supply chain is embracing digital transformation and finding new ways to create a flexible and agile framework for business. It's no surprise, therefore, that Gartner® predicts by 2027, more than 70% of enterprises will use industry cloud platforms to accelerate their business initiatives, up from less than 15% in 2023.[1]

In this changing landscape of global commerce, we are seeing a focus on greater collaboration and integration with business systems, as trading partners look for an ecosystem that can meet all their needs and provide streamlined access to partners and suppliers. The importance of robust authentication and compliance measures is growing as companies strive to ensure the legitimacy of their products while adhering to industry standards and regulations. Alongside this, enhanced traceability and sustainability are becoming essential priorities to meet the need for greater transparency and ethical practices throughout the entire supply chain.

This report is based on our survey of over 400 professionals from organizations across all major industries and 55 countries. Within it you will find:

- Why supply chain collaboration is becoming increasingly critical as companies look to improve efficiency, ensure compliance, and reduce overall costs.

- How companies are exploring new ways to ensure their products and shipments are protected as they travel through today's complex global supply chain.

- How compliance demands, both from a regulatory and customer perspective, are increasing rapidly as the supply chain increases in complexity.

- Why the demand for transparency is gaining steam as businesses and consumers look to understand how goods are produced and distributed.

- Why sustainability pressures from stakeholders, including customers, governments, and investors, are bringing significant changes to labeling operations and packaging artwork processes.

[1]Gartner, Top Strategic Technology Trends for 2024, Bart Willemsen, Gary Olliffe, et al., 16 October 2023. GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.

TREND 1

The adoption of collaborative supply chains

The combination of complex supply chains and increasing demands has led to a greater need for connection and collaboration, further leading companies to embrace digitalization while looking for a more flexible and agile framework that allows them to streamline access to trading partners (partners, suppliers, customers, and their own global facilities across their enterprise).

As companies search for a better way to do business, this type of collaborative network supports authenticity, compliance, and traceability in the supply chain. It allows trading partners to exchange product identification standards, labels, data, and rules and provides significant gains allowing stakeholders to securely share data, coordinate activities, and track product movements in real-time. Ultimately, creating a new level of collaboration is vital to improving efficiency and compliance while significantly reducing overall costs and avoiding fines.

90%

believe there is an increased need for connection and collaboration across the global supply chain

Successfully managing upstream challenges

Managing an upstream supply chain involves sourcing and procuring materials, managing inventory, and ensuring quality control. However, all these parts, products, and resources must be correctly identified and labeled for smooth receipt. Unfortunately, this is often not the case, resulting in factories and warehouses receiving goods that don't meet corporate labeling standards and/or labeling errors. With companies being more global than ever, often having hundreds or even thousands of suppliers, this failure to meet product identification requirements causes chaos. Mislabeled items require extensive and manual relabeling efforts that are often measured in millions of dollars, result in excess inventory, and slow the flow of goods through the downstream supply chain.

However, leveraging a connected network that enables companies to publish standards and artifacts to all its global suppliers can ensure that inbound goods are properly labeled. This dramatically improves receiving efficiency, optimizes inventory, and streamlines subsequent supply chain processing. By subscribing to this network and accessing corporate product identification standards, suppliers lower their IT burden and ensure adherence while removing security risks. Most importantly, it dramatically streamlines processing and simplifies implementing mass change, ensuring consistency and accuracy across suppliers.

Adopting a collaborative approach to downstream requirements

84%

believe it would be beneficial to join an ecosystem where supply chain partners share access, data, and standards to optimize performance

Today's customers are demanding their vendors meet a wide range of unique and variable labeling requirements including formats, barcodes, languages, and data attributes, to name just a few. These vendors are now faced with complexities they didn't encounter in the past and if they fail to meet customer requirements, they risk facing fines in the millions of dollars or losing business. Without a comprehensive labeling approach and access to a network of trading partners, vendors struggle to comply with standards set by their customers.

Fortunately, providing access to a collaborative network where companies can easily subscribe to information on customer requirements and label templates ensures compliance with their customer standards and facilitates the flow of goods through the supply chain. This limits fines and has a significant impact on the bottom line, while also improving speed to market.

Enabling global expansion and business continuity

As businesses continue to expand globally through organic growth and acquisitions, companies are recognizing the benefits of standardizing their labeling across the enterprise. This is because multiple disparate and manual solutions often lead to inaccuracy and inconsistencies across an organization, resulting in higher costs, a risk of non-compliance, and the inability to support change. Of course, this type of approach requires extensive maintenance and IT support, which is especially difficult to secure in this era of digital transformation.

58%

reported that being part of a supply chain network would offer real-time visibility and increased efficiencies

However, having a scalable solution that can use a publish and subscribe model for product identification standards across the entire global enterprise facilitates expansion and ensures consistency. Not unlike the need to extend labeling both upstream and downstream in the supply chain, it's critical to provide access to label data and templates to all corporate facilities. This ensures the entire organization is meeting corporate guidelines. It also supports business continuity, allowing all company facilities to have immediate access to approved product identification standards needed to keep the supply chain flowing and minimize the impact of any disruptions.

TREND 2

Companies look to secure their supply chains

An increasing number of companies are exploring new ways to guarantee their products, shipments, and data are protected as they travel through today's complex global supply chain. This is why solutions that enable authenticity are becoming increasingly important as companies try to uniquely identify their goods and materials, ensuring that counterfeiting and diversion are not impacting their operations.

Providing the ability to uniquely identify the legitimacy of a product or package helps to safeguard against counterfeiting and diversion while also enabling security, legitimacy, and credibility for a company's data and their brand. Ensuring authenticity throughout the supply chain ultimately helps to alleviate any risk of brand damage and increased costs, while also ensuring consumer safety.

76%

say it's becoming increasingly difficult to manage product authenticity and brand security in today's complex global supply chain

Anti-counterfeiting initiatives turn to AI

78%

believe AI can be useful in analyzing data to identify counterfeit goods

Cloud solutions integrated with artificial intelligence (AI) technologies are revolutionizing the fight against counterfeiting by enhancing accuracy and efficiency in product verification. AI-driven labeling platforms can analyze vast amounts of data in real-time, detecting anomalies and inconsistencies that may indicate counterfeit goods.

By leveraging machine learning algorithms, these systems can identify patterns and predict potential risks, allowing for proactive measures to be taken before counterfeit products enter the supply chain.

Additionally, AI-powered image recognition and natural language processing can improve the precision of label verification, ensuring that each product's authenticity is rigorously checked. This integration not only strengthens the defense against counterfeiting but also streamlines the tracking and tracing process, offering a comprehensive solution that bolsters supply chain integrity and consumer trust.

Consumers drive renewed focus on product authenticity

79% brand damage | **77**% consumer safety

The two biggest risks associated with not being able to ensure product authenticity throughout the supply chain

Authenticity is the new currency for conversion, spending, and loyalty. Consumers are acting with caution due to the rising cost-of-living, but invariably they are also consuming consciously and mindfully. Increasingly, retailers and brands are being held to account – with authenticity having a significant impact on share of wallet, revenue, and loyalty.

As a result, businesses need to adopt strategies that emphasize transparency and trust. One effective approach is leveraging technology to ensure that every step of the product's journey is visible and verifiable. This is where the Cloud plays a crucial role. Being able to trace products both upstream and downstream using cloud-based solutions will become important for managing the product lifecycle and ensuring sustainable sourcing. These intelligent supply chains can track, trace, and authenticate products at every stage of the journey, from raw materials to consumer goods.

Serialization enables product verification

While serialization technology was first rolled out in specific industries, such as pharmaceuticals and medical device, it is beginning to gain steam in other sectors. Incorporating this technology into the management of supply chains has enabled the industry to respond to disruptions with greater agility. Serialization and barcode creation capabilities that prevent the replication of unique identifiers provide traceability through real-time tracking and monitoring of products as they are manufactured, packaged, shipped, warehoused, and delivered to customers.

59%

say their company is currently using serialization technology to solve supply chain challenges

The data collected is then transmitted to a cloud-based platform, where it can be analyzed and used to identify bottlenecks, optimize logistics, and improve overall supply chain efficiency. In this way, serialization technology is instrumental in managing inventory, limiting waste, and improving forecasting.

TREND

3

Boosting business performance through compliance

Evolving customer demands, industry standards, and regulations define how products are developed, shipped, and disposed of across the global supply chain. These compliance demands, both from a regulatory and customer perspective, are increasing rapidly as the supply chain grows in complexity. Trading partners are also placing greater importance on the ability to manage evolving compliance requirements which can have a direct impact on both consumer safety and a company's bottom-line. These include ESG initiatives, which are helping businesses better manage risks, unlock opportunities, and drive positive change within society.

To navigate this challenging landscape, companies are turning to cloud technologies. These systems provide real-time updates and the centralized management of labeling, making it easier to adapt to new regulations and standards with accuracy and speed. Businesses can avoid costly fines and delays associated with non-compliance, while also enhancing transparency and accuracy throughout the supply chain. This approach not only mitigates risks and reduces instances of costly fines and penalties, but also supports sustainable practices and strengthens consumer trust.

Industry regulations impact bottom line

Companies across a wide range of industries are not only seeking creative ways to improve profitability but are also looking for ways to control noncompliance. This has become especially challenging as global regulations and the speed at which they change are continuing to have a significant impact on business. With new standards and regulations dictating requirements throughout a wide range of industries (such as ESG regulations, DSCSA, FSMA, EU MDR, UDI, GHS, and more), labeling and packaging have become recognized as critical functions for meeting compliance.

As requirements increase, companies must find more efficient ways to showcase unique data attributes and formatting standards including pictograms, regional requirements, and a vast array of other regulatory content. This is why labeling must be both dynamic and data-driven for companies to quickly respond. Implementing a comprehensive cloud labeling solution allows companies to integrate with sources of truth, access centralized data, and use business logic to address requirements so they can more easily manage regulatory variations. This approach minimizes the risk of errors leading to costly recalls and fines and helps companies to meet requirements with increased speed and agility.

Impact of global regulations

85%
loss of business

74%
business disruptions

67%
inability to enter new markets

58%
fines and penalties

Reimagining supplier compliance with the Cloud

55%

of companies are forced to relabel inbound goods from suppliers and partners

77%

believe providing controlled access to their labeling for partners and suppliers would help save time and money

It's not uncommon for some companies to have thousands of partners and suppliers providing goods and resources that contribute to product development. This is why maintaining supplier compliance has become a vital part of today's business and manufacturing processes. However, for decades, organizations have struggled to streamline the receipt of inbound goods from business partners including suppliers, contract manufacturers, and third-party logistics providers. And although some larger corporations have succeeded using a model of forced compliance, this approach doesn't work for everyone and still results in mislabeling and hundreds of millions of dollars in fines. This is where the Cloud is proving to be crucial.

Using cloud technology, suppliers and co-packers can gain access to a customer's labeling platform to seamlessly print labels using pre-approved templates and data. Businesses are able to regulate access to the platform, gaining a meticulous record of each label printed and guaranteeing that labels meet compliance and brand standards. Using this approach, companies can eliminate timely and costly instances of relabeling.

Streamlining customer requirements

51%

have struggled to meet increasing customer-specific labeling requirements in the past 12 months

Customer expectations have increased with no sign of slowing, demanding that companies respond swiftly and accurately to their specific needs. In today's fast-paced market, being able to meet customer-specific labeling requirements is crucial. The speed at which businesses can adapt to these demands significantly impacts customer satisfaction and loyalty. Legacy labeling methods, often rigid and slow, can no longer keep pace – risking lost revenue and fines. Companies need to adopt more agile and responsive solutions to stay competitive.

Cloud technology offers an effective solution to these challenges. By using a templatized approach, businesses can easily manage and configure labels to meet varying customer demands without sacrificing speed or accuracy. This method leverages real-time data integration, allowing for instant updates and modifications, ensuring that labels are always compliant and relevant. With this approach, business users can update labels without IT, allowing businesses to quickly and easily master variations with ease, reduce errors, and enhance operational efficiency.

TREND

4

Companies bolster track and trace initiatives

The demand for supply chain transparency is gaining steam as businesses and consumers look to understand how goods are produced and distributed with visibility of a product's journey all the way from the source to the consumer. This includes knowing where and how products are made, the labor practices involved, the end-to-end journey of products, and any environmental impacts that occur along the way.

Solutions that enable supply chain traceability offer stakeholders secure access to a company's data about the origin of raw materials and products, both providing real-time visibility into supply chains and helping to support swift product recalls when required.

68%

say cloud technology has played a role in improving end-to-end traceability in their supply chains

Elevating recall efficiency for improved traceability

47%

believe supply chain disruption and loss of products/inventory are the biggest risks associated with not being able to track products through their global supply chain

The brand damage generated by recalls (and the mishandling of them) can be extensive. Not only does it affect a company's reputation, but it can also change its financial profile and hinder performance in the market. It can take organizations years to recover their brand integrity. The stakes are especially high in regulated industries, involving not just products but human life. The ability to quickly identify issues and manage recalls can make an enormous difference. And so, in the supply chain, we know it's not about the label, but the data that lies beneath.

Collaboration and digital transformation of processes are key to elevating traceability. Connected communities enable faster and more efficient ways to identify products for recall and the speediest way to pinpoint and retrieve where they are in the supply chain. In turn, this minimizes errors, ensures compliance, reduces financial implications, removes other knock-on financial implications, and helps to ensure consumer safety.

Blockchain offers new opportunities

Blockchain, once seen as just hype, is now proving to be a game-changer in supply chain management. As an open distributed online ledger, this platform records transactions efficiently and in a verifiable and permanent way to provide full visibility for chain of custody. Every time a product changes hands, the transaction can be documented, creating a permanent history of a product, from manufacture to sale to consumption. With this kind of complete transparency, potentially anyone can see and know where and how a product traveled to its ultimate destination.

57%

believe blockchain technology will impact supply chain transparency and traceability within the next three years

The label, of course, is the identifier for each product and the vehicle for providing this information every step along the way - providing the physical representation which enables the traceability required for blockchain to work. There is an obvious advantage for industries like life sciences for patient safety and food and beverage for food safety, as recalls have become areas of focus. However, any company embracing blockchain can recognize the potential to dramatically reduce delays, while eliminating added costs and human errors that often plague supply chain transactions.
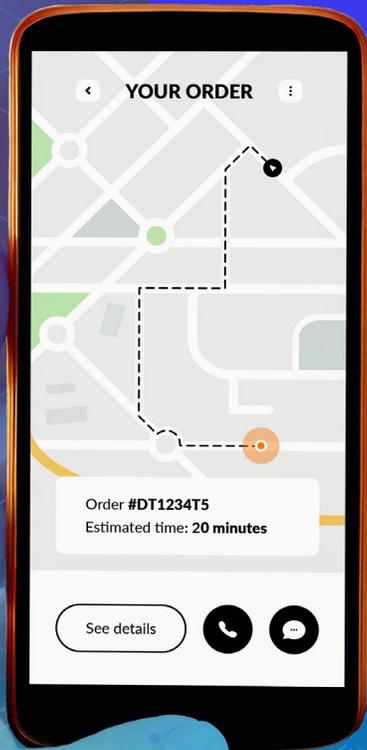
Increased consumer demand for supply chain visibility

With the continued surge in online shopping comes a renewed focus on labeling and packaging to accommodate increased packing and shipping as consumers move away from traditional retail and purchasing from brick-and-mortar establishments. In recent years, consumers have heightened expectations for the supply chain, seeking speedy product delivery and demanding transparency regarding the origin and details of their purchases. Organizations are continually reviewing how they can meet and improve these expectations and demonstrate accountability. With the increased requirement for 'delivery to your doorstep', more suppliers and third parties must integrate and collaborate with each other. This adds additional complexity to the supply chain.

Labeling and packaging are pivotal components in global supply chains and are interwoven throughout –

the capability to standardize and centralize with a configurable cloud labeling solution is therefore key.

78%

say consumer demand for supply chain visibility is having an impact on business and supply chain strategies

By connecting trading partners through the Cloud, regional manufacturers, distribution centers, and third parties can demonstrate full traceability and provide organizations with brand consistency and a reduction in errors.

TREND 5

Sustainability focus reshapes
how companies operate

The increasing importance of sustainability is reshaping the regulatory and operational landscape for businesses across all industries. Companies are also recognizing the cost-saving potential of sustainable practices, with Enterprise Labeling solutions playing a key role. These technologies not only improve supply chain visibility but also reduce waste from traditional labeling processes, lower inventory levels, and cut transportation costs, thereby driving significant savings.

Additionally, by migrating essential labeling operations to the Cloud, businesses can minimize energy consumption and their overall carbon footprint. This dual approach — sustainability paired with operational efficiency — helps organizations meet regulatory requirements, cut costs, and advance their environmental goals, all while positioning themselves as leaders in a rapidly evolving marketplace.

Sustainability regulations reshape how companies operate

79%

say stricter regulations and compliance requirements are pushing their business to adopt sustainability practices

The focus on sustainability has become an undeniable force across the modern business landscape, with a surge in regulations that are geared at driving sustainability set to reshape the way companies operate. Some examples include the EU Digital Product Passport, carbon labeling, and the EU Ecolabel.

54%

say Digital Product Passports play a significant role in enhancing supply chain transparency and sustainability within their industry

As businesses grapple with these and other regulations, Enterprise Labeling solutions help to streamline compliance. Automation and integration should not be underestimated; the ability to create accurate labels that seamlessly meet regulatory requirements across different jurisdictions, and without data replication, ultimately reduces mislabeling and the risk of fines and penalties. When it comes to product identification, integrating labeling directly with data sources of truth helps to ensure consistency and precision. Additionally, through the ability to perform real-time checks, these technologies can instantly flag any non-compliant elements or errors in labels.

Sustainable operations result in cost cutting measures

In today's dynamic business landscape, companies find themselves struggling with escalating cost pressures. The focus now is to proactively embrace innovative strategies and technologies to not only weather this storm but also seize bigger opportunities for cost-cutting measures.

49%

of companies have observed cost savings as a result of implementing sustainability initiatives within their supply chain

Many business leaders today are feeling the weight of rising energy prices. However, cloud-based solutions are designed to optimize resource utilization and energy efficiency in data centers. The enhanced supply chain visibility and flexibility afforded by these technologies also allow companies to identify and rectify inefficiencies, reduce inventory levels, and eliminate waste from pre-printed label stock. Additionally, this minimizes transportation costs, eventually leading to considerable savings across the enterprise. By hosting mission-critical business processes such as labeling in the Cloud, companies can reduce their energy consumption and carbon footprint, resulting in lower utility bills and reduced environmental impact - all while aligning with their sustainability goals.

Companies turn to labeling to showcase green credentials

As sustainability becomes increasingly important to modern shoppers, clearly communicating a brand's environmental initiatives and the impact of its products is vital if businesses want to maintain market share. By leveraging cloud technology to provide clear, verifiable, and up-to-date labeling information, companies not only meet these expectations but also reinforce their credibility and authenticity.

84%

say consumer demand for sustainable products will continue driving sustainability initiatives in their supply chain

This technology allows brands to seamlessly integrate and display data on factors such as carbon footprint, sourcing practices, and recyclability, ensuring that consumers have access to accurate and current information. This commitment to transparency not only helps to build long-term consumer loyalty but also positions brands as leaders in the sustainable marketplace, further enhancing their reputation and competitive edge.
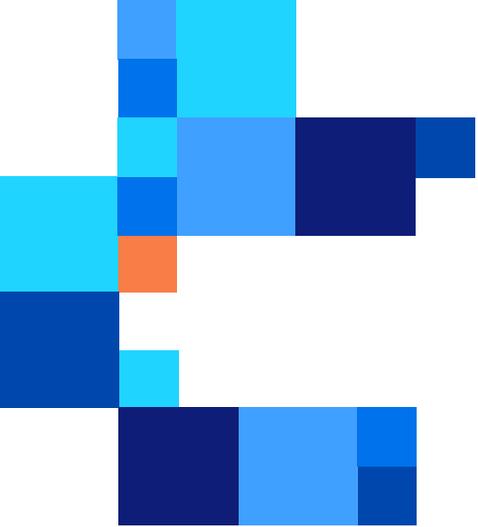
No matter what the challenge – digital transformation, time to market, or brand authenticity - Loftware can help you make your mark. We understand how global supply chains work and know that each item you produce, and ship is an expression of your company's brand. We can help you improve accuracy, traceability, and compliance while improving the quality, speed, and efficiency of your labeling. Our end-to-end cloud-based labeling platform helps businesses of all sizes manage labeling across their operations and supply chain and our solutions are used to print over 51 billion labels every year. Loftware also fosters supply chain agility and supports evolving customer and regulatory requirements, helping companies save over $200 million in fines annually. And with over 500 industry experts and 1,000 global partners, Loftware maintains a global presence with offices in the US, UK, Germany, Slovenia, China, and Singapore making us a trusted partner for companies in automotive, chemicals, clinical trials, consumer products, electronics, food & beverage, manufacturing, medical device, pharmaceuticals, retail/apparel, and more.

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