



5 Critical Steps

To Optimize Your Packaging
Development Process



Trillora[™]
Packaging Solutions



From Concept to Reality: 5 Critical Steps in the Strategic Packaging Development Process

The packaging development process is complicated. Getting the right box — one that's brand-building and optimized — into the supply chain is hard enough when the supply chain is local or in the same country. In the overseas product supply chain it can be difficult to design, engineer and specify packaging. Creating an ideal packaging development process that minimizes waste and inefficiencies while maximizing value for stakeholders and end users begins with a concept. What does it take to bring that concept to reality?

If you are in a position to make packaging-related decisions and want help developing and implementing packaging initiatives that move the needle for your company, this ebook provides a roadmap for better and more strategic management of the packaging development process. There is an entire world of ideas around the more granular, tactical aspects of packaging development (color management, prototyping, design validation, etc.) that we could hope to cover on the following pages; rather, this ebook provides an overview of some of the most important steps in the process of creating a packaging program that minimizes waste and inefficiencies while maximizing value for stakeholders and end users.



STEP 1:

Lay the Foundation.

While it might be tempting to dive right into the planning phase, establishing a solid foundation will pave the way for designing and implementing an efficient packaging development process.

Three critical steps are integral to laying the groundwork for the process.





Identify key packaging stakeholders.



80%

Warehouse managers asked to find an average of 19% cost savings from existing operations

44%

Respondents citing insufficient space as a major operations issue

**A TOP ISSUE AMONG
WAREHOUSE AND LOGISTICS
PROFESSIONALS:**

**Insufficient
space for
inventory and/
or operations**

Packaging is cross-functional to all organizational operations. Each phase of the supply chain—e.g., marketing, purchasing, production, legal, logistics, etc.—will bring unique (and often overlapping) considerations to the table. Packaging initiatives usually fail when packaging decisions are siloed within an organization, as no one engineer or designer can possibly account for all of the different packaging needs across all of the departments that interact with packaging. Instead, decisions should be made in coordination with key stakeholders (individuals within the organization who either have a vested interest in packaging being successful, or would benefit from well-designed packaging solutions) from marketing, procurement, logistics and legal.

What does each stakeholder want from packaging? What questions are they asking about packaging? What information do they need to make packaging-related decisions? Understanding the needs of each department at the table and how they view packaging will make it easier to get cross-departmental buy-in when you are ready to present your new packaging concept or strategy.

Identifying key stakeholders early on in the process can also help guide changes in packaging design, materials and/or operations that will move the needle for departments and decision-makers throughout the supply chain.

Distribution managers, for example, are constantly being tasked with lowering operating costs and improving overall efficiency. In one survey, nearly 80% of warehouse managers were asked to find an average of 19% cost savings from existing operations. In another, “insufficient space for inventory and/or operations” was the #2 issue among warehouse and logistics professionals. Knowing this, you might get buy-in and support from the logistics representative at the table if you explain how material and design optimizations can improve warehouse/distribution center efficiency.



How Optimized Packaging Can Improve Distribution Center Metrics

Well-designed packaging can positively impact distribution center metrics in a variety of ways:



Reliability

Warehouses and distribution centers aim for the Perfect Order, a “calculation of the error-free rate of each stage of the purchase order.” Optimized packaging can help warehouses and DCs avoid many of the setbacks, delays and errors attributed to poorly designed packaging. The net positive impact of optimized packaging means more orders make it through the supply chain, on time and in one piece. Higher on-time shipment rates can enhance brand value by giving customers greater confidence that they will get what they order.



Number of Touches

Packaging that is ready to rack and labels that are easy to read improve overall distribution center efficiency and fill rate. Ideal systems allow packages to be moved through distribution centers without being touched, increasing both ease and speed of delivery.



Repacking

Damaged cartons need to be reworked in the warehouse or DC before next delivery. Well-designed packaging protects the products they contain, thus resulting in less damage. Optimized packaging can help warehouse managers avoid the extra expense of time and labor associated with repacking; fewer damaged cartons translates into lower demand for rework.



Labor

Streamlining packaging is one way to reduce labor costs, often one of the highest categories of distribution center spending. Optimized packaging solutions can significantly reduce assembly and packing time, boosting employee productivity and efficiency. Enhanced packaging solutions facilitate improvement in a variety of labor metrics, including overtime hours, contract employee hours and percentage of cross-trained employees.



Cross-Docking

An effective packaging system makes it easier for brands to cross-dock. Unloading materials from incoming delivery vehicles (trucks or rail cars) directly onto outgoing delivery vehicles significantly reduces or, in some cases, eliminates the need for storage. Cross-docking affords many benefits to distribution centers, including reduced storage space, greater efficiency and an overall reduction in costs.



Gather key packaging-related data and information



How do you know which packaging improvements to make first? Whether you're designing a new transport container or overhauling your entire packaging program, you must let the data guide your decisions. Gathering key packaging-related information early on in the process will also help you establish benchmarks against which you can measure the impact of different packaging optimizations.

You may not have access to all of the data you need, but the exploratory cross-departmental packaging committee you've assembled can help you gather information from different sources within and outside the organization.

Speaking of outside data sources, packaging vendors and suppliers are a critical source of information as it pertains to packaging spend. Unfortunately, some packaging suppliers might be hesitant to share certain metrics or data in the interest of preserving confidentiality to maintain a competitive advantage (or to avoid revealing poor performance). You must be strategic with packaging factories to get true numbers. Don't tip your hand by explaining that you are in the process of reevaluating your packaging program.

Key packaging-related data and information you should gather early on include:

- ✓ Audit your current packaging and baseline
- ✓ Understand your supply chain routes and costs
- ✓ Gather information about numbers of items, quantities ordered and the transaction process for your product vendors
- ✓ Gather stakeholder comments about current packaging and major wish lists
- ✓ Know locations of product factories
- ✓ Calculate the annual and monthly volume
- ✓ Note the numbers of SKUs and styles
- ✓ Account for cost targets



TROUBLE GETTING DATA FROM SUPPLIERS?

It might be time to reevaluate your relationship.

It's one thing if you aren't asking your packaging suppliers the right questions, but if you ask and your supplier either doesn't know or won't answer, it's time to reevaluate your relationship. Lack of visibility makes it impossible to direct, implement and measure any significant or meaningful changes to your packaging program, especially if you are trying to manage packaging on the other side of the world. For example, if you are sourcing packaging in Southeast Asia and don't have dedicated personnel on the ground, you must rely on your suppliers to provide you with the information and insights needed to make strategic packaging decisions. Alternatively, you can look to outsource or complement elements of packaging management with companies that have people in the countries where you have manufacturing facilities and warehouses to provide you greater packaging visibility and control.

Examples of information you should be able to receive from your packaging suppliers include:



UNIT COST



PACKAGING CAPABILITIES

(people, processes, equipment, etc.)



SECOND- AND THIRD-TIER SUPPLIERS



DETAILS ABOUT MATERIALS USED





Read packaging news and trends

Staying up-to-date with current packaging trends and technologies will afford you the knowledge to make informed, future-proof decisions throughout the packaging development process. The more research you conduct, the more you'll be able to generate new ideas and identify opportunities to explore. **For example, consider how the following packaging trends might influence your packaging decisions:**

Sustainability

According to a [2021 GreenPrint study](#), consumers are seeking out and willing to pay a premium for environmentally friendly products. The study found that 64% of Americans are willing to pay more for those products, while 78% are likely to purchase a product that is clearly labeled as environmentally friendly.

Paper's Superior Recyclability

Brands rely on many different materials for packaging, but paper-based solutions are far and away the most recyclable option. The recycling rate for post-use corrugated packaging (commonly referred to as OCC) was 91.4% in 2021, up from 88.8% in 2020, [according to the American Forest & Paper Association](#). The OCC recycling rate of 91.4% is up from 88.8% in 2020, Webber said. In 2021, mills consumed 24.3 million tons of OCC, the highest level ever. Compare that to the recycling rate for plastics, which as of the latest data averaged less than 10%.

E-Commerce

Total worldwide retail e-commerce sales are expected to grow 56%, from \$5.2 trillion to \$8.1 trillion, by 2026. E-commerce packaging presents a unique set of challenges compared to packaging designed for traditional "brick and mortar" logistics systems. Protection, for example, is paramount – an estimated one in five packages arrives damaged, according to uShip, which can have a negative impact on consumers' perception of a brand. E-commerce packaging should also be return-ready. While the brick-and-mortar return rate is around 9%, it's around 20% for online purchases (or even as high as 50% during the holidays, depending on the industry). Because returns are commonplace for online shoppers, e-commerce consumers expect (and appreciate) an easy return process.

Want to learn more about these and other packaging trends? Here are a few good places to start:

Four Key Trends That Will Shape the Future of Packaging to 2028 (Smithers Pira)



The Role of Automation in the Future of Packaging (Omron)



2023 Global Packaging Trends (Intel)



eCommerce Logistics Trends for 2022 (PCC Logistics)



Dieline's 2022 Trend Report (Dieline)





STEP 2:

Assess Your Existing Packaging Program

After you lay the foundation, the next step is to assess your existing packaging program. Taking a critical look at your packaging will help identify gaps between how you envision the role of packaging in your organization and how packaging actually performs. You must critically examine the complete packaging supply in order to discover opportunities and insights that will guide the packaging development process.

From origin to destination, understand all the touchpoints and distribution channels in the packaging supply chain as they relate to the ways in which your packaging performs its essential functions: protect, contain and communicate.



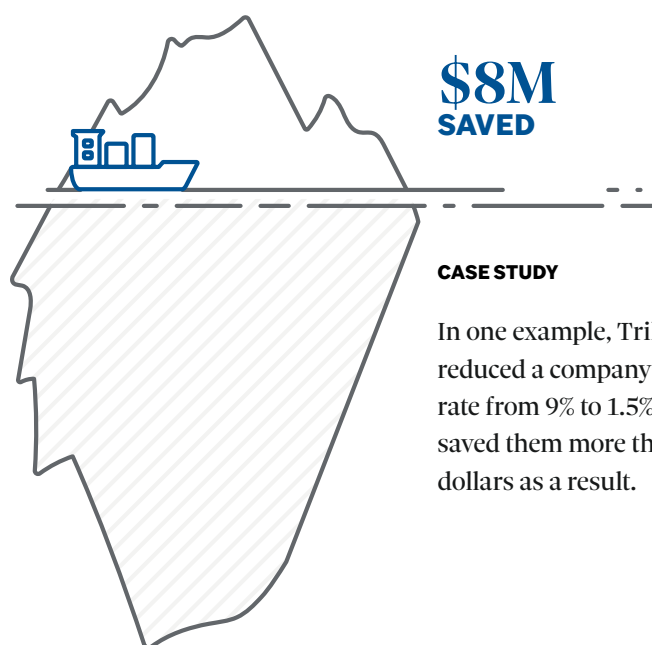
Protection

According to Amcor, packaging return rates average between 20-30%. More than one-third (34%) of those returns are due to product damage, and packages are dropped frequently during the shipping process.

Meanwhile, replacing a damaged product can cost vendors up to 17 times more than the original shipping cost, the American Institute for Packaging and the Environment (Ameripen) has estimated.

Damaged packaging can also result in lower customer lifetime value: research has found that 73% of consumers who received a damaged shipment are unlikely to order from the same retailer again.

How well does your existing packaging system protect against shock, vibration, compression, etc.?



Freight claims are just the tip of the iceberg — there's more you don't always see

REWORK

- In-field service
- Expedited shipping costs

MARKDOWNS

- Discounted products
- Slow product turnover

CUSTOMER SATISFACTION

- Value of dissatisfied or lost customers

WASTE

- Cost to dispose of waste
- Environmental impact

RETURN SHIPMENTS

- Shipments costs
- Disposal costs of damage unit

INTERRUPTIONS & DELAYS

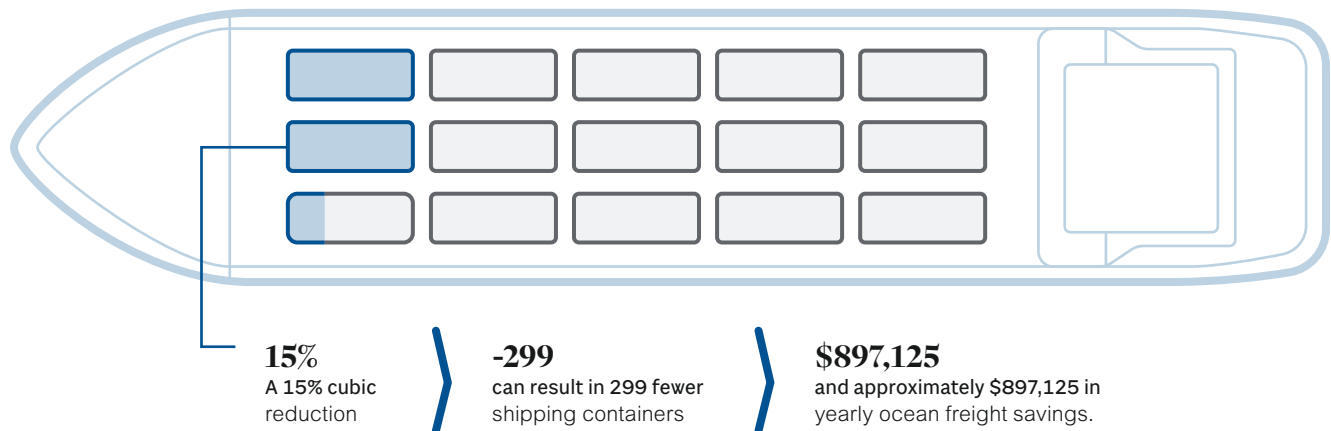
- Missed deadlines
- Speed to market



Containment

Packaging systems enable manufacturers to bulk ship multiple product SKUs in a single box, or on a single pallet; they also need to be contained and stored throughout the supply chain. One of the key benefits of right-sizing is improved volumetric efficiency inside trailers and/or shipping containers. In other words, by eliminating dead space you can effectively ship more products without incurring additional transportation costs. In some cases, optimized packaging may even

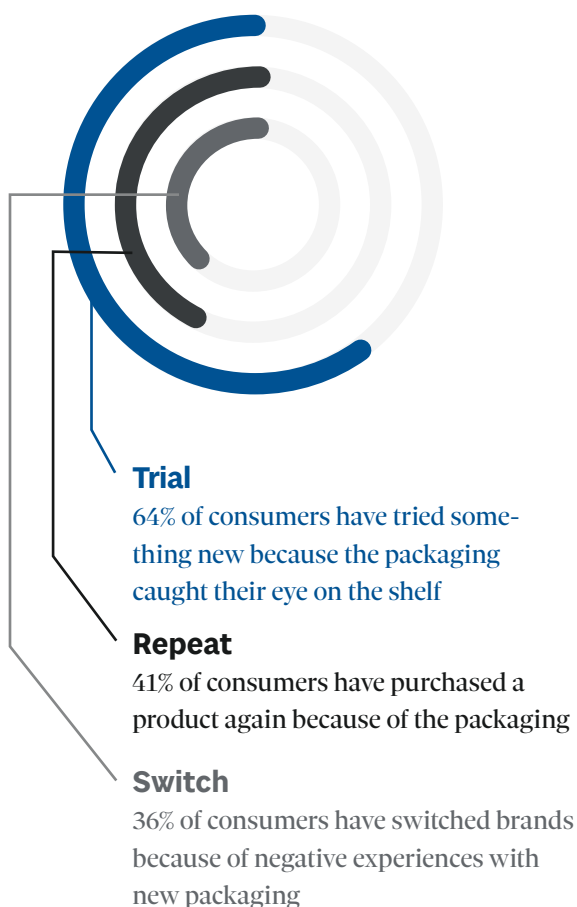
reduce the number of shipping containers overall. “Right-sized” packaging reduces (or eliminates) the need for costly void fill materials, which can lower your packaging spend. And depending on how much dead space exists in your current packaging, re-designing to eliminate air may also result in needing fewer boxes (or less packaging material) to ship the same number of products overseas.



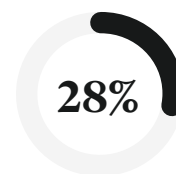


Communication

Packaging does more than contain; it also communicates. Packaging conveys necessary information to consumers such as net weight of the contents, name and address of the manufacturer and how to use, transport, recycle or dispose of the package or product. Packaging also plays a key role in marketing as the design can be used to encourage potential buyers to purchase the product. Does your current packaging system effectively convey important information about the product, lend brand consistency and market the product?



52% are willing to pay 10% more



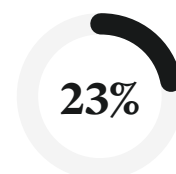
28% are willing to pay 21-30% more

United States

Among those U.S. consumers who indicated a willingness to pay more for paper or packaging products that have sustainable attributes:



56% are willing to pay 10% more



23% are willing to pay 21-30% more

United States

Among those Canadian consumers who indicated a willingness to pay more for paper or packaging products that have sustainable attributes:

Sustainability

Sustainability is not one of the key functions of packaging, but it is one of the most important factors to consider when evaluating existing packaging designs and operations. Environmental concerns are more important now than ever before. [A 2020 McKinsey study](#) found that 60-70% of consumers said they would pay more for sustainable packaging. The Paper & Packaging Consumer Trends report found that a majority of those consumers willing to pay more would pay between 10% and 30% more. Previous research has identified an estimated €966 billion (over \$1 trillion USD) opportunity for brands that make sustainability credentials clear. Are the materials you currently use in your packaging systems recyclable or reusable? How much waste do they produce?



STEP 3:

Set Goals and Establish Benchmarks

Clarifying the vision and defining the goals of the proposed changes to your packaging development process will increase accountability at every juncture. Are you aiming to reduce product damage, decrease the weight or size of the packaging system or enhance the product's aesthetic appeal? Understanding the constraints of your supply chain will help you determine which changes to your packaging system are feasible.



Sustainability Goals

As consumers continue to demand greater concern for the environment, innovative packaging systems need to become increasingly sustainable. Specific sustainability goals might include:

Source all paper packaging

Strive to eliminate all emissions

Use a greater proportion of recyclable materials

Incorporate a “how to recycle this package” label



Packaging Indicators

In its [Global Protocol on Packaging Sustainability](#) (GPPS), the Consumer Goods Forum provides over 40 different sustainable packaging indicators and metrics that span material use, water use, energy use, material health, clean production and transport, cost and performance, community impact, worker impact and other areas that are touched and impacted throughout the packaging supply chain.

These include:

- Packaging-to-product weight ratio
- Material waste
- Recycled content
- Packaging reuse rate
- Cube utilization
- Acidification potential
- Cumulative energy demand
- Product shelf life
- Community investment
- Total cost of packaging

Which indicators and metrics you use to express positive or negative movement toward your packaging goals depends on the range of environmental and economic impacts you expect to achieve with better packaging.



The Consumer Goods Forum recommends stakeholders and decision-makers consider the following points to help determine which indicators are the most appropriate and impactful:

POINT 1

Relevance and significance

What is the business question being asked? What are the most significant areas of activity and influence related to packaging? Priority indicators are those that are the most relevant to the question(s) at hand and pertinent to the organization's actual packaging materials/processes.

POINT 2

Lifecycle phases

In selecting attributes and indicators, attention should be given to those that address multiple stages and touch-points throughout the packaging lifecycle, including upstream, use phase, transportation and end-of-life characteristics. A more holistic, “cradle-to-grave” approach can also help packaging designers and other stakeholders make packaging decisions that reduce environmental and economic impacts.

POINT 3

Level at which indicator is used

Stakeholders engaged in the process of selecting appropriate indicators must first determine the level at which each indicator will be used. Indicators and their corresponding metrics can be assessed at the individual functional unit level (e.g., packaging component or product), at the business unit level (e.g., marketing or logistics) or at the corporate level.

POINT 4

Alignment with other objectives and processes

Ideally, packaging indicators and metrics should be adopted if they are in close proximity to decision points that are already considered as part of the design or design-approval process. This ensures measurement and the gathering of relevant data is already being done. Alignment with other objectives and processes can also give packaging indicators more weight and influence in relation to packaging decisions.

POINT 5

Availability of data

An indicator is only as impactful as the data behind it. Therefore, the availability of data (and of resources to obtain the necessary data) must be considered when selecting indicators to adopt and the value of each corresponding metric. If certain data is not readily available or obtainable, yet necessary for a key packaging indicator, you will need to work with other internal departments and/or external suppliers to get the required information.



STEP 4:

Achieve Buy-In and Garner Additional Support

Support along all phases of the packaging development process often seems elusive. While there is no magic formula for achieving buy-in from key stakeholders and decision-makers, presenting your findings and potential opportunities in a clear, compelling manner will pave the way. Inviting collaboration, ideas and input will further position you for collective success.



No company wants to leave money on the table. Make a “bottomline” case to show how your proposed enhanced packaging development process will eliminate unnecessary spending and improve company profits (this is where those case studies you read earlier will come in handy). No company wants to fall behind the competition, either.

You may garner additional support for proposed packaging initiatives by researching how your competitors are gaining an edge with better packaging. The Estée Lauder Companies, for example, acknowledges that “**packaging innovation serves as a competitive advantage,**” combining visual desirability and in-use experience with technical advancements to delight consumers.

Ultimately, if you need to get buy-in or support from individual department heads, build a business case for packaging that enumerates the benefits in the language that other stakeholders understand: numbers. Consider these scorecards used by other business functions and think about how packaging fits in and can be used as a lever to improve the metrics other stakeholders care about:



Sales

revenue growth, number of customers,
price realization



Operations

storage cost per pallet, inventory
turns, freight rates



Procurement

cost per component, gross-
margin percent



Finance

capital spending, EBITDA growth,
working capital levels



Manufacturing

line speed, uptime, scrap rate,
conversion cost



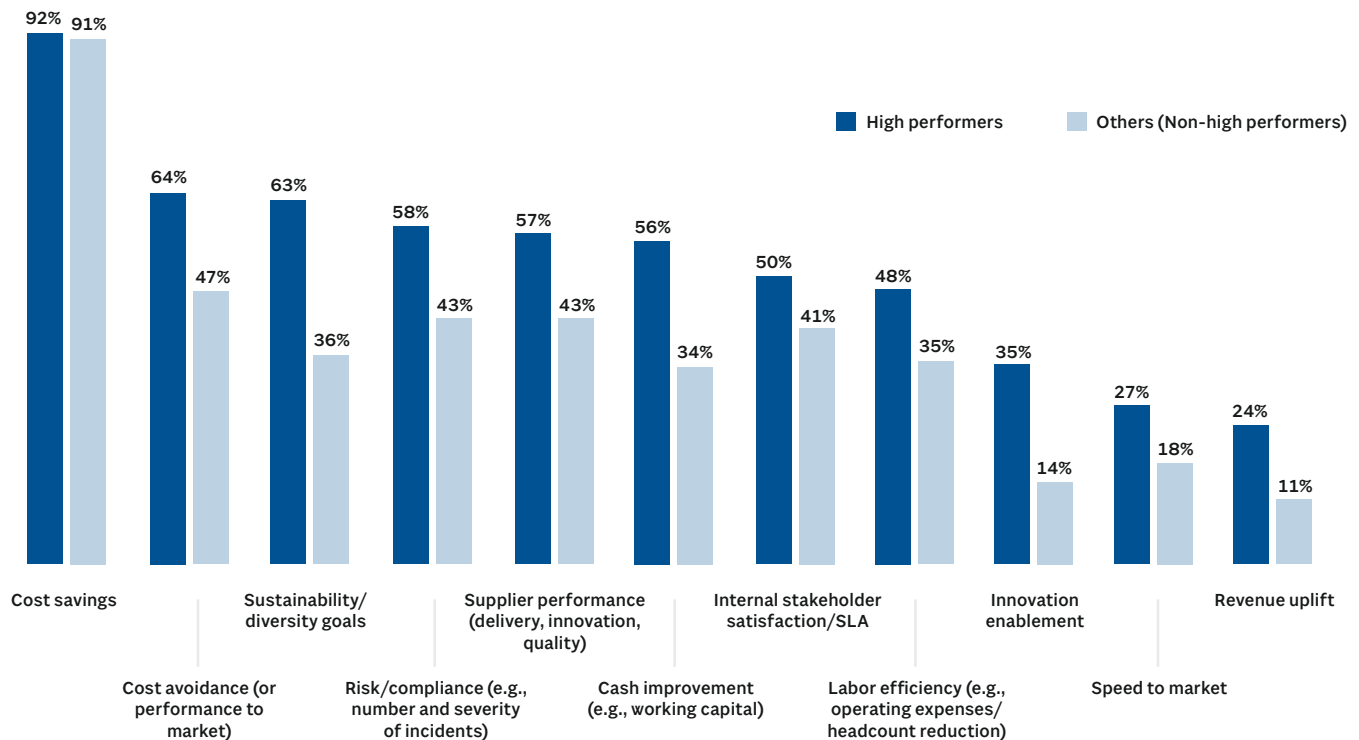
PITCHING PACKAGING TO PROCUREMENT:

How to make the case

Procurement is often the biggest hurdle standing in the way of true packaging innovation. Purchasing departments are typically focused on driving costs down (in traditional procurement the saying is “get three bids and go with the lowest”) and may not look beyond the unit cost of packaging. It may be difficult to get approval if your strategy involves more expensive packaging, but not impossible. The right approach is to understand how procurement people are incentivized and explain how packaging can help shift procurement from a tactical arm of the enterprise to a key strategic driver.

According to Deloitte, 43% of CPOs say supply chain disruption and procurement risks increased significantly in 2023, up from 20% who said so in 2021.

Only 25% of firms feel equipped “to a large extent” to identify and predict supply disruptions in a timely manner.



When the time comes to discuss packaging with procurement, the conversation must go beyond the unit cost and focus instead on how packaging can be used as a lever to help procurement deliver value to the company. For example, explain how better packaging (even if more expensive) can lower total “ownership” costs by reducing product damage, increasing packaging reuse rates, lowering airfreight chargers, etc.



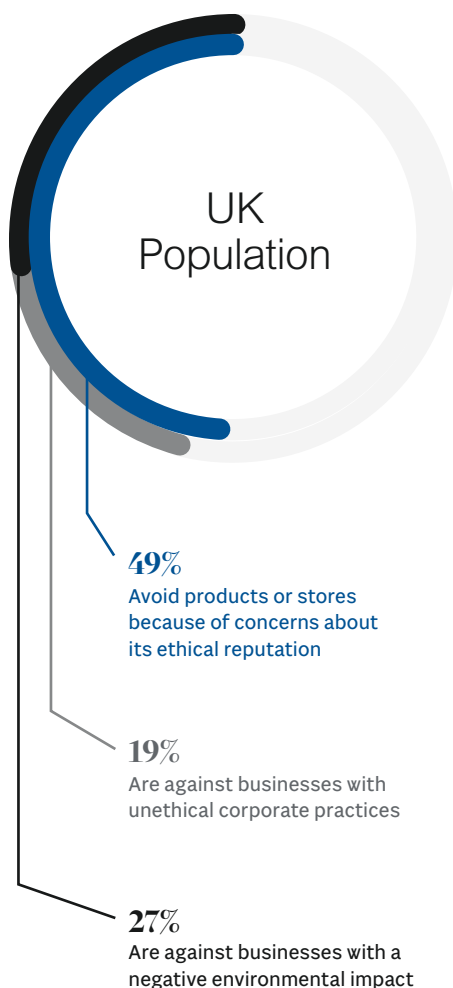
STEP 5:

Find the Right Packaging Supplier

After the brainstorming, strategizing and fine-tuning, it's time for action. In the implementation phase, alignment between suppliers and vendors is especially critical. The right packaging supplier obviously must have the right people, processes and production capabilities in place to meet your design and specification requirements, but more importantly they should not pose a threat to your brand. Allow us to explain.



According to a [2022 LendingTree study](#), 25% of Americans are boycotting a product or company they had spent money on in the past, due to political differences, stances on social issues or concerns about environmental impact. UK consumers surveyed have reported even greater boycotting activity on perceived ethical grounds, according to the [Ethical Consumers Markets Report](#).



And if you think consumers won't look at all facets of how your brand impacts society and the environment, think again. As consumers continue to show their support or disapproval for companies through financial sway, their propensity to do extra digging on company programs has increased over time. According to a Cone Communications study, 39% of Americans report they have done research into a company's business practices or support of social or environmental issues in the past 12 months.

What does all of this have to do with your packaging supplier? In short, protecting your brand. If consumers discover that your packaging suppliers are violating human rights or polluting the environment, it could hurt your brand in a big way. Again, this is why it's critical that you have full visibility regarding how your packaging suppliers operate and even who they work with, since second- and third-tier suppliers can be just as damaging to your brand if consumers are able to connect bad actors with your packaging or products in any way.



Make managing packaging easier

Trillora provides world-class packaging services and solutions to some of the world's largest brands. Here's how we do it:

We listen

What are your biggest concerns about packaging? What part of the packaging supply chain is giving you the most headaches? What obstacles do you need to overcome to simplify and streamline your packaging operations in Southeast Asia? You talk, we listen, and together we come up with packaging solutions that make sense for your brand.

We audit

We take a close look at your packaging supply chain to identify savings opportunities, uncover inefficiencies and determine where the biggest pain-points are, so we can make the very best packaging recommendations based on the current state of your packaging operations.

We design

There's no such thing as a one-size-fits-all packaging solution, because there's no such thing as a one-size-fits-all packaging supply chain. That's why we design and engineer packaging solutions made to fit your products and your distribution chain, not the other way around. It's only the "right fit" if it's right for your specific needs.

We supply

Controlling packaging across large systems and a wide range of product factories can be difficult without the right people and processes in place. We have teams on the ground making sure that your packaging solutions are delivered to your OEM factory on time and on spec. As the only point-of-contact for all your packaging needs, we help you regain control of your packaging supply chain by simplifying what was once complex.

We analyze

Our engagement isn't over when the packaging is delivered. We continue to analyze packaging performance and look for further savings opportunities hidden in your supply chain, driving results where it matters most: your bottom line.



Managing Packaging is Easier With Trillora

You'd hire a fishing guide if you wanted to learn about all the good fishing spots, right? Well, if you're fishing for savings, Trillora can help you catch the big one. Partnering with an experienced packaging industry leader will position you for success in designing, implementing and overseeing a strategic packaging program that nets real results for your company.

As your single point of contact for all packaging-related activities in Southeast Asia, we make it easy to put your plan into action. We also have teams of packaging experts that can help you develop that plan if you don't know where to start or need help discovering additional savings opportunities locked in your packaging supply chain.

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