



Never have the complexities and the crucial role of supply chains been so clear to the public as they are now with pandemic-related disruptions affecting everyday life. Issues related to supply and demand of certain products have highlighted the need for greater visibility into inventories and movement through distribution. But that is not the only issue on people's minds.

We have seen an extraordinary acceleration of major shifts in the way people want to shop, and even what they want to buy:

- People have learned to expect options like contactless transactions, home delivery, online shopping, click-and-collect, and other new ways to get what they need.
- Retailers, restaurants and suppliers have had to figure out how to meet customers where they are, even as the ground shifts beneath their feet.
- Public interest in sustainability has increased, along with a growing focus on healthy lifestyles and social responsibility.

It all adds up to a day of reckoning for companies across industries. They are now forced to prioritize supply chain resiliency so they can successfully deliver the right products, to the right destinations, at the right price and at the right time. Online shopping has shifted distribution channels. Product shortages have frustrated consumers. Delivery has become a hot button. People

who never thought about supply chains are now acutely aware of the crucial role they play in making the world go 'round.

Boxes are the backbone of e-commerce.

The e-commerce boom was already going strong when the pandemic sparked radical growth in online shopping. According to the [Adobe Digital Economy Index](#), online grocery alone is up more than 230 percent of pre-pandemic levels, and [Nielsen](#) forecasted online grocery sales will reach \$94-109 billion in 2021.

Especially now, industry is heavily reliant on corrugated boxes for secure delivery to consumers. In March 2020, as restaurants and stores shut down during the first month of COVID-19, corrugated box shipments grew 9% over March 2019 shipments. This surge was boosted by overstocking of household paper, cleaning supplies and food. Shipments grew again year-over-year in June, July, and September, with October, November and December shipments hitting record highs and boosting industry shipments up 3.4% in 2020, the largest annual increase since 1994. The corrugated industry ended the year at 407 billion square feet (BSF) of product shipped, its highest level of shipments recorded, surpassing the previous high of 405 BSF in 1999.

Simply put, corrugated cardboard boxes were recognized as the backbone of the American supply chain. The fast-tracked shift to [e-commerce](#) has kept

the industry on its toes, working with brand owners and consumer packaged goods (CPG) customers to adjust box sizes, enhance the consumer's in-home experience with high-quality graphics, and communicate brand values.



More corrugated is recycled than any other packaging material.

While shoppers need more convenient delivery options, they're also becoming more aware of the impacts of their choices – from the food they eat, to the way it is produced, to the packaging it's delivered in. Sustainability is a growing concern. In fact, new research shows that 49 percent of consumers are now considering sustainability when buying food and drink.¹

Everyone knows by now that plastics are disastrously destructive to the environment, especially oceans and marine life. There is heavy pressure on the plastics industry to develop new solutions and more recyclable options that could mitigate and slow down the damage. The current recovery rate for plastics is dismal at 9 percent² and falling.

Meanwhile, paper-based packaging has always been a sustainable choice – safe for wildlife, degradable in the elements, nontoxic, and recyclable. For over a decade, 90 percent of corrugated boxes have been successfully recycled. In fact, the average box is recycled 7 times and contains nearly 52 percent recycled material. Corrugated packaging supports a “circular economy” by minimizing raw material usage and energy consumption, plus robust recycling and reuse, including incorporation of recycled materials into new products.

For decades, grocers and other retailers have played a major role in making sure that the corrugated boxes coming into their locations, carrying the products they

sell, get recycled. They've been equipped to bale and compact the boxes for pickup by recycling contractors who pay them for the recovered material.

The infrastructure for corrugated recovery and recycling is very well established in commercial supply chains, but now that more boxes go directly to consumers' households and less to retail establishments, municipal recycling programs are becoming a more important source of recovered fiber. That means those curbside and drop-off recycling programs are playing an even more vital role than ever, and consumer participation is crucial.

Sustainability goes beyond recycling.

An extraordinary recovery rate is a fine example of the environmental benefits of corrugated packaging. But true sustainability goes beyond recycling, and it's important to know that corrugated is made from a completely renewable resource.

The trees that are used to make paper and paper-based packaging come from sustainably managed forests, where the forest products industry plants more trees every year than they harvest. Today, one-third of the US is forested, and there are more trees than there were on the first Earth Day celebration over 50 years ago. That's what a circular economy is all about.



In business, sustainability is understood to encompass responsible management of environmental, economic and social resources and impacts. It has become a critical business marketing and survival strategy, driven by public opinion, government regulation, dramatic changes in major retailers' purchasing criteria and increased consumer awareness.

¹ <https://kerry.com/latest-news/2021/consumers-demand-increased-sustainability-credentials-from-their-food-and-drinks>
² <https://www.nationalgeographic.org/article/whopping-91-percent-plastic-isnt-recycled>

The growing emphasis on sustainability has weighty implications in packaging. Some of the world's largest retailers now demand measurable improvements in packaging sustainability for the products they buy and sell to consumers. Not only that, as consumers receive more of their purchases directly into their homes, they see more of the packaging – and they are highly aware of its environmental impact. In a world where purchasing experiences are reviewed on e-tailer websites and social media, it isn't difficult to find consumers pushing back on suppliers that "over-package" their products. The need for sustainable packaging options is obvious.

Measuring carbon footprint for continuous improvement.

In addition to supplying vital stock for the manufacture of new paper products, steady increases in corrugated recycling help the industry continue to reduce its environmental footprint. The recycled content of corrugated boxes is tied to total system fiber usage and therefore is linked to many variables in a life cycle assessment (LCA). The amount of new virgin fiber required in the system is balanced by the recycled content which affects energy consumption and emissions at the mills. The use of nearly 52 percent recycled fiber in the average corrugated box contributes to a significant reduction in waste to landfills and subsequent methane generation – which reduces the industry's life-cycle impact on global warming potential (GWP).

The Corrugated Packaging Alliance publishes the corrugated industry's LCAs, including baseline assumptions and documented statistics. The latest studies can be viewed [here](#). The 2014 LCA revealed a 32 percent reduction in GWP had occurred since the first-ever corrugated industry LCA published in 2009, along with double-digit reductions in eutrophication, respiratory, and fossil fuel depletion indicators.

Leverage corrugated's versatility to adapt and delight.

Growth in e-commerce means more products are shipped in smaller units, to far more end destinations. Protecting those products along the way, throughout the supply chain, is different than bulk delivery to retailers.

That means the packaging is different. Instead of shipping a pallet of products to a store, sellers are shipping single units to many more destinations. Those packages end up in people's homes, instead of in

stores. There, the consumer's experience will shape their perception of the brand.

Direct delivery to consumers opens a golden opportunity for brands to shine. The product must first arrive in perfect condition – adequately protected through shipping and delivery, looking good, in a container that has withstood its journey to their homes.

To really score points, the package can become a branding vehicle used to delight shoppers. Corrugated printing technologies have advanced in the past few years to make high-quality graphics better than ever – so the box can be used to deliver a powerful brand message. It's an opportunity to brighten someone's day by showing up looking beautiful and speaking directly to them.



The package can also be used to communicate brand values, in addition to merchandising. Do not underestimate consumers' sensitivity to issues around sustainability. They do not want to receive items over-packaged, so right-sizing the box is important. The fewer packing materials needed to fully protect the product inside the box, the better. The less waste generated in a consumer's household, the more positively they will feel about the package and the brand.

Brands that successfully adapt to continue selling and delivering positive experiences, through whatever channels consumers prefer, have an opportunity to pull ahead and gain loyal customers for the long haul.

Get on board

CPG companies and retailers can do their part by providing products in recyclable corrugated boxes, and by purchasing boxes that are right-sized for optimal material use. Equally important, make sure that the boxes are marked with the Corrugated Recycles emblem and go the extra mile to encourage consumers to place the empty boxes into their recycling bins.

For more information, visit www.boxesareextraordinary.com and follow us on [Twitter](#), [LinkedIn](#), [YouTube](#), [Facebook](#) and [Instagram](#).