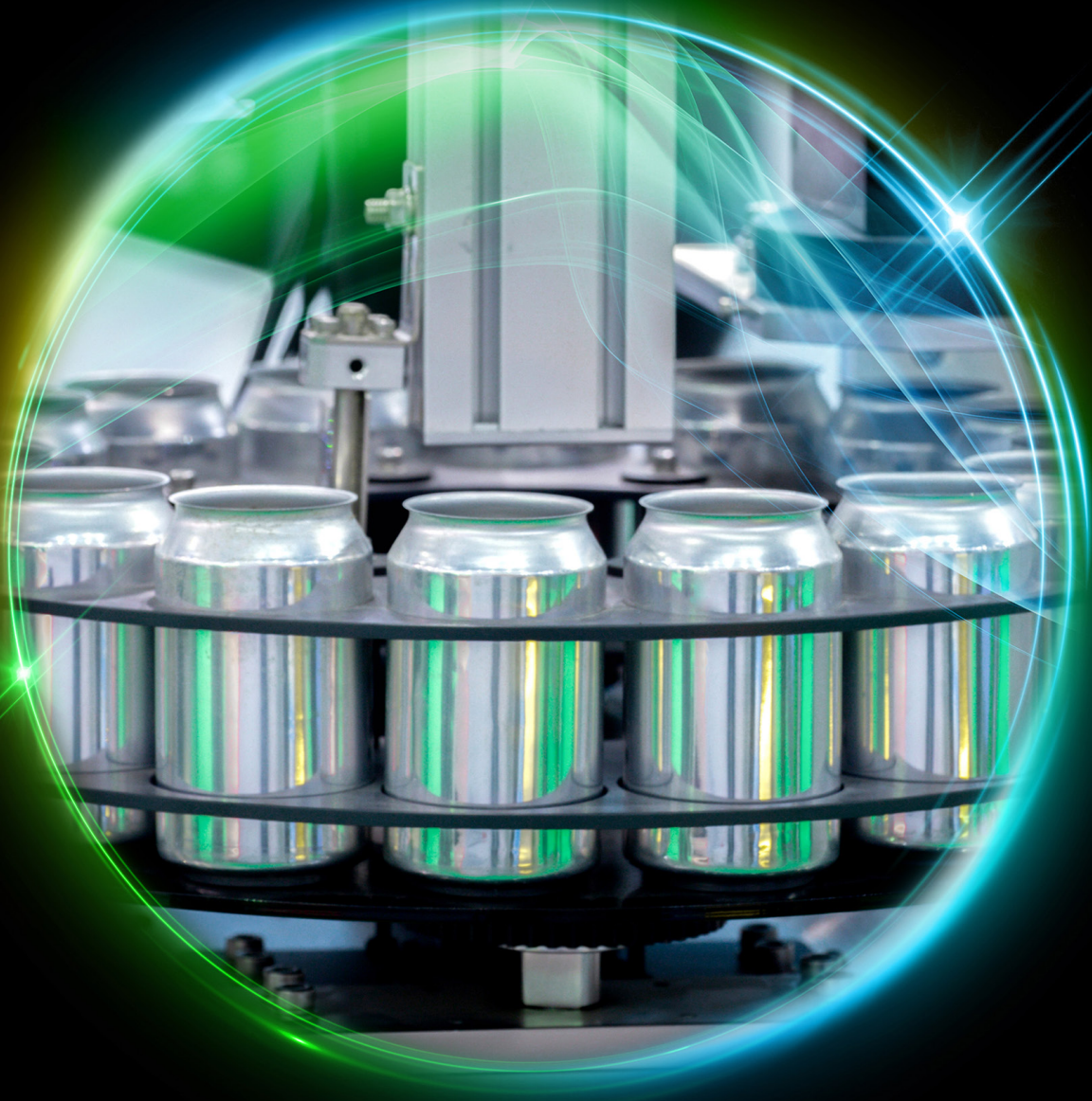


**Deloitte.**



**Reshaping Paper & Packaging:  
5 questions x 5 insights**

Navigating market dynamic and  
technological innovations

# Contents

Introduction	3
QUESTION 1: What role could portfolio optimization play in reshaping the Paper & Packaging marketplace?	4
QUESTION 2: How have packaging companies employed digital technology to improve operations?	5
QUESTION 3: How should Paper & Packaging companies be thinking about sustainability reporting requirements?	6
QUESTION 4: What are some of the latest innovations in the packaging segment?	7
QUESTION 5: What signals can Paper & Packaging companies be taking from the CPG industry? How can they react?	8
All wrapped up: Navigating change and seizing opportunities	9
Authors	10

# Introduction

The Paper & Packaging (P&P) industry finds itself at an important juncture, influenced by rapidly evolving market demands, a shifting regulatory landscape, and emerging technology innovations. As environmental concerns rise and consumer preferences shift toward sustainable products, P&P companies are working to redefine their operational and strategic frameworks.

This report examines five questions that are currently reshaping the future of the industry. Through comprehensive analysis, this report provides insights that can help industry leaders better understand these changes and provides strategic considerations that could help determine their competitive edge and sustainability in the market.

Within the current landscape of change, portfolio optimization emerges as a strategic imperative, digital transformation becomes a necessity rather than a nice-to-have, and sustainability reporting transitions from voluntary to mandatory. These shifts underscore the industry's accountability to both regulators and a more conscientious consumer base. Additionally, this report explores the latest innovations disrupting the sector and the strategic signals P&P companies should consider heeding from the broader consumer packaged goods (CPG) industry.

As each of these areas are examined, this 5x5 analysis highlights key trends, showcases leading practices, and proposes strategic recommendations to help thrive in tomorrow's market. The P&P industry's future could be shaped by how effectively companies can adapt to these emerging challenges and seize the opportunities presented by a more digital and sustainable world.

## QUESTION 1:

# What role could portfolio optimization play in reshaping the Paper & Packaging marketplace?

The P&P industry, over the past 50 years, has experienced a pendulum in thinking around organizational structure and operating models. As companies expanded from their original product, they often began to acquire a broad portfolio of offerings in line with growth strategies of other asset-intensive industries in the 1970s through 1990s. The general thinking behind this approach was likely that a diversified portfolio of products, customers, and markets could, in effect, smooth earnings and help provide for a more attractive investment.

This strategy resulted in many companies making each product line with a relatively small percentage of the whole. This often led to an undisciplined approach to capacity management—companies were running at full capacity to optimize their asset utilization and drive down their fixed cost ratio, which resulted in an increase in inventory and, in a commodity market with diminishing demand, unstable pricing.

Taking a cue from the steel and chemical industries, it was seemingly recognized that a consolidation of producers could be a better path forward. Small transactions could be seen as companies looked to determine their strongest product and market position based on their current asset mix.

This change of strategy, in North America, began in earnest in the early 2000s and resulted in a consolidation where fewer producers controlled a majority of the capacity for a product category; in effect, becoming more specialized with fewer primary products versus a broader product portfolio of the previous century. This often resulted in more discipline by the leading producers through market shutdowns to better manage inventory volume to demand. The benefit has been more stable pricing for most products.

This global industry has historically been served by regional producers with some integrated operators acquiring (or joint venture) assets in geographies outside their primary market (e.g., North America, EMEA). However, these explorations into new markets have not tended to be a material contributor to overall financial success. This may be changing.

There have been a few recent transactions that may indicate that a global consolidation of companies and products is the new market strategy. Amcor's acquisition of Bemis in 2019 strengthened their respective positions in flexible and rigid packaging across a global geography.<sup>1</sup> This was followed by Billerud's acquisition of Verso in 2022.<sup>2</sup> And in 2024, Smurfit Kappa acquired WestRock.<sup>3</sup> These transactions resulted in capacity and financial contribution from a new geographic market. It should be observed if others may follow this global strategy.

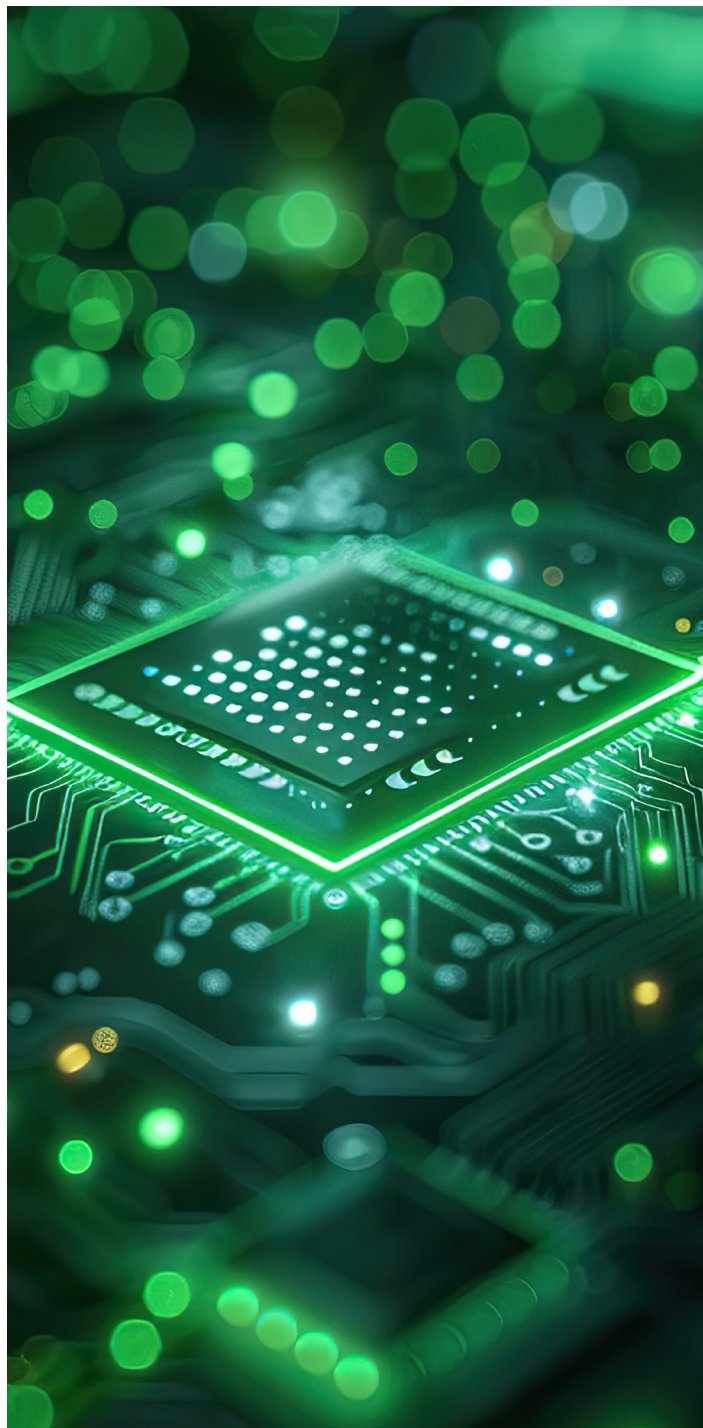


**QUESTION 2:**

# How have packaging companies employed digital technology to improve operations?

Industry 4.0 has been around for more than a decade and describes the rapid advancement of operational technology (OT). The advancement in technologies has led to the ability to aggregate information on a production line, within the plant, or across the entire network of assets.<sup>4</sup> This can offer management and operators the insight needed to help make decisions on efficiency, energy, and labor that can lead to operational and financial improvements. There was early adoption of smart manufacturing (SM) by discrete manufacturers, and the process industry is now beginning to embrace the benefits of this new operational strategy.<sup>5</sup>

Companies can stumble with digital strategies when a pure technological approach is employed in developing the capability. To help solve operational inefficiencies, an ecosystem of technologies is often required; however, the strategy should be business-led and address operational challenges such as overall equipment effectiveness (OEE), asset optimization, predictive maintenance, workforce management, etc. Companies that start with the business benefit and then determine which technology is needed to achieve the change could be far more successful than those that push a “shiny object” out to operations. There are many success stories in the P&P industry where a SM strategy has resulted in an increase to OEE and quality, an avoidance of capital expenditure, and a decrease in unplanned downtime through predictive maintenance.<sup>6</sup>



### QUESTION 3:

# How should Paper & Packaging companies be thinking about sustainability reporting requirements?

The landscape of sustainability reporting is undergoing a significant transformation, marked by heightened accountability and transformative regulatory changes. As the SEC's climate disclosure rule and the EU's Corporate Sustainability Reporting Directive (CSRD) take effect, many P&P companies are feeling compelled to overhaul their sustainability oversight practices.<sup>7</sup> These regulatory frameworks are generally demanding more detailed disclosures coming from a more formalized internal control environment. That said, some sustainability reporting is being done by many companies today and much of the data is available, if not yet gathered and controlled. The effort is around shifting the purpose of sustainability reports to cover both compliance and strategic communication that highlights the company's commitment to sustainability.

Another consideration is to stay tuned in to what suppliers and customers may need regarding data to support their sustainability reporting; particularly scope 3 emissions.<sup>8</sup> Customers, in particular, may start expecting not only data but also results of a company's efforts to reduce the emissions footprints of the products delivered. Finally, consider how the data collected can support business operations. For example, insights can be gathered on manufacturing equipment efficiency, energy usage, and even fuel choices. Data on customers' appetite for lower-carbon products can influence revenue streams for current and to-be-developed products.



## QUESTION 4:

# What are some of the latest innovations in the packaging segment?

Next-generation innovations, disruptive technologies, and sustainable solutions in the packaging industry are helping to reshape its future. These advancements include the development of intelligent, active, personalized, and e-commerce-focused packaging solutions, with a particular emphasis on sustainability. Sustainable packaging takes center stage, reflecting the industry's commitment to environmental responsibility amid consumer-driven demands for eco-friendly solutions.

Key innovations that are setting trends in the packaging industry include:

- 1. Eco-friendly materials:** Companies are increasingly turning to biodegradable, compostable, and recyclable materials to lessen their environmental impact. For example, one company is coating paper in a biodegradable plastic alternative to revolutionize bagged chips.<sup>9</sup> Others are using plant-based materials like cornstarch to create home-compostable packaging, which provides an environmentally friendly alternative to traditional plastics.
- 2. Smart packaging:** Sometimes referred to as “connected” packaging, companies are using a number of digital tools, such as QR codes and NFC tags, to engage with consumers, heighten transparency, and support sustainability.<sup>10</sup>
- 3. Minimalist packaging:** In an effort to help minimize waste, some companies are downsizing their packaging and focusing on what's essential.<sup>11</sup> This approach not only could help address environmental concerns, but also could respond to consumer preferences for simplicity.
- 4. Reusable packaging:** Consumers remain interested in convenience, so companies need to continue delivering on this while considering sustainability. With a focus on reusability, packaging designs are becoming more user-friendly, with features like resealable closures, single-serve formats, and built-in dispensers that can enhance convenience for consumers.

The increasing visibility of climate change and its economic implications is compelling the P&P industry to act. Despite some executives questioning consumers' willingness to pay for sustainability, evidence suggests a growing consumer readiness to pay a premium for sustainable products. According to a recent Consumer Signals™ report, consumers in North America are willing to pay up to a 24% premium for sustainable food and beverage options.<sup>12</sup> This willingness highlights the importance of continued innovation in packaging to meet both consumer expectations and environmental objectives.



## QUESTION 5:

# What signals can Paper & Packaging companies be taking from the CPG industry? How can they react?

The Consumer Analyst Group of New York (CAGNY) Conference in February 2024 underscored this trend, revealing a concerted push within the industry toward aligning product offerings with eco-friendly packaging.<sup>13</sup> This movement is about meeting consumer demands, reducing environmental impacts, and fostering innovations in packaging design and materials. For instance:

Loliware's introduction of the seaweed-based Blue Carbon straw.<sup>14</sup>

- Ingredient's translation of consumer insights into ingredients and packaging solutions.<sup>15</sup>
- PepsiCo's switch to a paper-based solution to hold packs of beverages together.<sup>16</sup>
- Coty's patent-pending formulation and sustainable packaging for Infiniment Coty.<sup>17</sup>
- Conagra's plant-based fiber bowls.<sup>18</sup>

Further, the conference highlighted several strategic approaches that P&P industry companies can consider:

- **Innovation in packaging:** Develop packaging solutions that cater to changing consumer preferences, such as varying sizes, shapes, and functionalities that address portion control and portability.
- **Sustainability:** Invest in sustainable materials and processes to minimize environmental impacts. This could include utilizing recyclable or biodegradable materials, reducing excess packaging, or improving production processes to lower carbon footprints.
- **Premium packaging options:** As the demand for premium packaging grows, companies should consider exploring using higher-quality materials and offering customizable options to meet these consumer expectations.

- **Adaptability:** Stay agile to accommodate changes in product formulas, which might involve alterations in texture and flavor, by developing packaging that maintains product integrity, enhances user experience, and emphasizes the product's unique attributes.

By embracing these strategies, P&P industry companies can help reduce their environmental footprint and foster a circular economy in which resources are extensively recycled and reused. This commitment to sustainability is an ethical imperative and could serve as a strategic advantage in today's environmentally conscious market.



# All wrapped up: Navigating change and seizing opportunities

As the Paper & Packaging industry stands at a crossroads, influenced by digital transformation, sustainability imperatives, and consumer expectations, this report offers a potential roadmap to help navigate these challenges. The insights from addressing these five questions can equip industry leaders with the knowledge to make informed decisions, drive innovation, and enhance sustainability practices. In a world where adaptability and foresight are often key, staying ahead of these trends could be critical for survival and success in a competitive market.



# Authors

## Jay Behringer

Managing Director, Deloitte Services LP

[jbehringer@deloitte.com](mailto:jbehringer@deloitte.com)

+1 303 641 0170

## John Vickers

Managing Director, Deloitte & Touche LLP

[jovickers@deloitte.com](mailto:jovickers@deloitte.com)

+1 281 224 0016

## John Dixon

Principal, Deloitte Consulting LLP

[jodixon@deloitte.com](mailto:jodixon@deloitte.com)

+1 704 904 2683

## Rebecca Levine

Senior Consultant, Deloitte Consulting LLP

[relevine@deloitte.com](mailto:relevine@deloitte.com)

+1 412 452 7878

# Endnotes

1. Amcor, "[Amcor completes acquisition of Bemis, creating the global leader in consumer packaging](#)," press release, June 11, 2019.
2. Billerud, "[BillerudKorsnäs completes acquisition of Verso](#)," press release, March 31, 2022.
3. Smurfit Westrock, "[Smurfit Westrock makes its debut in New York and London](#)," press release, July 8, 2024.
4. Puneet Bhargava and Monika Mahto, *From one to many: Scaling the smart factory to a smart network*, Deloitte, 2020.
5. Paul Wellener et al., *2019 Deloitte and MAPI Smart Factory Study*, Deloitte Insights, 2019.
6. Emily Newton, "[Why is digitalization increasingly important for the packaging industry?](#)" *Supply Chain Connect*, January 19, 2023.
7. US Securities and Exchange Commission (SEC), "[SEC adopts rules to enhance and standardize climate-related disclosures for investors](#)," press release, March 6, 2024; European Union, Directive 2022/2464 EN – CSRD, December 14, 2022.
8. US Environmental Protection Agency (EPA), "[Scope 3 Inventory Guidance](#)," last update September 4, 2024.
9. Jenny Allison, "[Snack company releases first-of-its-kind chip bag: 'The potential to revolutionize packaging as we know it'](#)," *The Cool Down (TCD)*, May 22, 2024.
10. Packaging Gateway, "[Exploring the world of connected packaging innovations](#)," March 5, 2024.
11. Oumar Fofana, "[Minimalism takes hold in packaging](#)," TCD, August 7, 2023.
12. [ConsumerSignals](#) is a longitudinal exploration of consumer spending behavior and the drivers behind it. Every month, we survey thousands of consumers across more than a dozen countries about their sense of financial well-being, spending intentions, and upcoming purchases big and small.
13. Justin Cook et al., "[2024 CAGNY conference highlights](#)," Deloitte, 2024.
14. Loliware, "[Straw: Designed to Disappear™](#)," accessed September 2024.
15. Ingredion, "[Own the AND™](#)," accessed September 2024.
16. Sabine Waldeck, "[PepsiCo launches paper-based beverage packaging to replace plastic rings in North America](#)," *Packing Insights*, August 29, 2023.
17. Medina Azaldin, "[How Infiniment Coty is redefining traditional fragrance compositions](#)," *Harper's Bazaar*, July 16, 2024.
18. Conagra Brands, "[Conagra expands use of bowls made from plant-based fibers through collaborative partnerships](#)," Footprint, September 29, 2020.





**About Deloitte**

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see [www.deloitte.com/about](http://www.deloitte.com/about) for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms. Please see [www.deloitte.com/us/about](http://www.deloitte.com/us/about) for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.

This publication contains general information only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional adviser. Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.