



The future of packaging

We're diving into the latest industry trends and cutting-edge innovations that will define the future of the packaging landscape.

Detpak



The future of packaging

The future of packaging is here as we explore the latest trends shaping the industry. From sustainable materials to innovations in design and technology, we delve into how brands are adapting to meet consumer demands and regulatory changes.

At the forefront of our field, pioneering the packaging industry, we invite you to join us as we uncover the transformative technologies and creative solutions that are driving the evolution of packaging in today's dynamic market.

Material innovation in the realm of packaging has led to the development of fibre-based packaging, which offers a sustainable alternative to traditional plastic materials. These fibre-based solutions are compostable and leverage renewable resources, thereby reducing the environmental impact and aligning with growing consumer demands for sustainable packaging options.

The rise of e-commerce has profoundly impacted the packaging sector, necessitating innovative solutions to protect products during transit while minimising environmental impact. Companies are increasingly focusing on sustainable packaging materials and designs that can withstand the rigors of shipping, reflecting a shift towards more efficient and environmentally friendly practices, in response to the growing volume of online orders.

Technological advancements in packaging have revolutionised the industry, introducing innovations such as smart packaging, which can monitor product freshness and integrity in real-time. Manufacturers and retailers are reaping the benefits of improved efficiency and cost savings, along with an improved customer experience.

Amid increasing legislative pressures, sustainability has become a paramount concern for businesses, influencing everything from product design, to supply chain management. Organisations are now compelled to adopt sustainable practices and adhere to stringent regulations to mitigate environmental impacts, ensuring compliance and maintained consumer trust, in an increasingly conscientious market.

Trends and innovations shaping the future of packaging:



**Material innovation:
Fibre-based packaging**



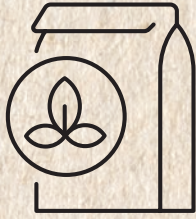
**Food Delivery:
Rise of e-commerce**



**Technological
advancements:
AI & interactivity**



**Sustainability amid
legislative pressures**



Material innovation: Fibre-based packaging

Paper, a fibre-based product, is commonly used in both primary and secondary packaging, particularly for food and beverage items. A versatile material, it comes in forms such as wraps, boxes, cartons and bags, highlighting its suitability for a wide variety of packaging uses, while also offering consumer protection, branding opportunities and essential information, such as recyclability claims.



Consumers in the driver's seat

Consumers play a pivotal role in driving change and innovation in packaging products, particularly when it comes to environmental concerns and recyclability. According to a 2023 global consumer survey conducted by GlobalData, 47% of respondents indicated that recyclable packaging is essential to consumers.¹ As awareness of environmental issues continues to grow, consumers are increasingly seeking out packaging with sustainability in mind.

As a result, brand owners will continue to be encouraged to prioritise sustainability and set goals to reduce the use of plastic in their packaging. This may involve implementing strategies such as transitioning to alternative materials, redesigning packaging to minimise waste and optimising packaging sizes to reduce material usage.

The future of packaging

Suppliers and manufacturers need to explore innovative solutions that meet the needs of consumers and goals of brands, including sourcing sustainable materials, investing in new technologies for recyclable or compostable packaging and adopting best practices for sustainable packaging design and production. Rising to the challenge and meeting this need is fibre-based packaging.

Made from reusable, renewable or compostable materials, fibre-based packaging offers an environmentally friendly solution to packaging needs. Its ability to replace plastic and other more traditional materials in many applications continues to be explored, with some big-name brands seeing early success in areas not attempted before. With advancements in technology and manufacturing processes, paper products have become increasingly durable, water-resistant and suitable for a wide range of uses. The gap between what was once considered unsuitable for a fibre-based option and what is now possible is closing.

Product attributes

There are still some challenges when contemplating fibre-based products as a replacement for plastic. GlobalData's survey showed that food safety and low cost are considered essential by more consumers than any other product attribute (48% and 43% respectively). While striving to meet corporate and social goals, it is imperative to ensure that packaging continues to be fit for purpose. This is vital in the area of food packaging in Australia where flexible packaging currently dominates at 48% of all food packaging, representing between approximately 20 to 21 billion units, with paper-based containers having a 12% volume share.²

Education and marketing

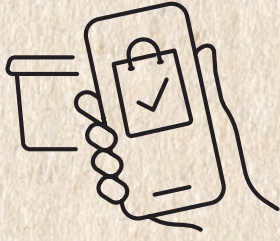
When introducing products in new packaging materials, consumer education and marketing will be key factors in making a successful transition to fibre-based packaging. Clear communication about the sustainability properties, recyclability and positive environmental impact can help consumers understand the importance of making the switch and encourage them to embrace the change.

Material innovation is an exciting space with its potential to revolutionise the packaging industry. Innovative packaging allows brands to stay ahead of the market, continue to be sustainable and engage their customers through marketing with fit-for-purpose packaging.

¹ GlobalData Q4 2023 global consumer survey

² Euromonitor International 2023





Food Delivery: Rise of e-commerce

Packaging is a major sector which has been affected as a result of the strong growth of e-commerce in recent years. Numerous industries rely on paperboard packaging for their products including consumer goods, cosmetics, pharmaceuticals and food and beverages.

E-commerce market share

The global e-commerce packaging market size is projected to grow from \$53.35 billion in 2024 to \$104.19 billion by 2032.³ With this significant increase comes a growing awareness by consumers of the environmental impact of packaging materials used in the shipping and delivery process involved in online shopping. This, in turn, places a greater demand on manufacturers and retailers to prioritise sustainable packaging processes to minimise their carbon footprint and reduce waste. From using recyclable and compostable materials, to adjusting packaging for efficiency, the use of sustainable packaging materials and practices will help to align with consumer values and contribute to a more sustainable supply chain.



Digital shelf to doorstep experience

Unlike the in-store experience, e-commerce packaging needs to consider several factors to ensure safe and efficient delivery of items from the digital shelf to the consumer's doorstep. These factors include providing adequate protection to prevent damage of items, optimisation for size and weight to reduce shipping costs and environmental impact, and efficiency in streamlining packaging processes for improved operational performance and cost reductions. Additionally, packaging serves as a powerful branding tool and presents an opportunity to make a positive, lasting impression on the consumer.

Prioritise safety

Changing consumer lifestyles have seen a surge in the popularity of food delivery services. With an increased number of consumers relying on packaged food for delivery, there is a growing expectation for food to arrive fresh, hygienic and intact. This places a greater emphasis on the role of packaging in maintaining product safety from the moment the product leaves the manufacturer to its arrival at its destination. Packaging companies must innovate and adapt to meet these evolving demands while continuing to safeguard public health. Collaboration between packaging manufacturers, food producers and delivery services will also be key to addressing these challenges effectively.

E-commerce market segmentation by material analysis

Based on material, the market is segmented into paper and paperboard, glass, plastic and other, with the paper and paperboard segment dominating the market. This is due to the renewable and sustainable nature of these materials. Unlike fossil-fuel-based plastic packaging, recyclable paperboard is the best choice for today's environmentally conscious consumer. According to the North American Packaging Association, the paperboard packaging market is estimated to remain steady over the next 5 years, with an average growth of 0.1% from 2019-2023.

E-commerce market segmentation by packaging type analysis

Based on packaging type, the market is segmented into flexible and rigid, with rigid packaging the fastest growing segment. Rigid packaging is commonly used to carry heavyweight products such as appliances, electronic goods, wine, fruit and vegetables and is often used for bulk shippers, distributing similar products in the same box.

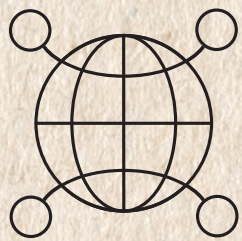
The rising need for hinge lid containers, particularly in the food industry, storage and medicine shipment processes in the healthcare industry, is expected to enhance the growth of rigid-type packaging. The demand for paper trays is increasing due to stringent government regulations and environmental concerns, further contributing to the growth of this segment. Cartons are another growth area as they provide an affordable and effective option for storage and shipping.

E-commerce market segmentation by end-user analysis

Based on end user, the market is segmented into food and beverage, pharmaceuticals, personal care and cosmetics, electronics and electricals, automotive and apparel, and accessories. The food and beverage segment dominates this market. Rising disposable income and growing online food delivery sales among the working and urban population drive this segment's growth. The rapidly growing food and beverage industry, increasing brand loyalty programs and beneficial offers on online purchases encourage customers to buy food online, boosting the demand in this industry.

According to the Institute of Food Technologists (IFT), beverage packaging experienced a 40% increase in 2020 and offered a window into the alterations faced by foods in general. IFT also stated that two-thirds of e-commerce beverage purchases made were for non-alcoholic products. They estimated retail e-commerce sales of every food and beverage purchase would grow by 16% in 2022. In addition, nearly 40% of brand owners anticipate changing their packaging to boost their sales. These factors aid the demand for e-commerce packaging, contributing to the growth of the food and beverages end-user segment.⁴

⁴ Source: <https://www.fortunebusinessinsights.com/e-commerce-packaging-market-104885>



Technological advancements: AI & interactivity

Packaging innovation and e-commerce demand has led to the development and use of emerging technologies, such as artificial intelligence (AI) in the supply chain as consumers continue their push for sustainable and ethical products. This is a major growth sector in packaging innovations.



Smart packaging

The integration of cutting-edge technologies and data-driven processes throughout the packaging supply chain offers a multitude of benefits, particularly in the realms of traceability and enhancing the customer experience. Through the adoption of smart supply chain packaging, which leverages technologies like Internet of Things devices, sensors, tags, artificial intelligence and analytics, businesses gain the ability to achieve real-time monitoring and enhanced visibility. This enables greater efficiency, responsiveness and accuracy in tracking products from production to delivery.

Analyse and act

AI and machine learning algorithms have the capacity to analyse extensive data collected by smart technologies, giving manufacturers and retailers the ability to efficiently and precisely record transactions, forecast equipment performance and potential disruptions, pinpoint supply chain issues and improve product traceability. By harnessing this technology, businesses can achieve cost savings, support sustainability objectives and elevate customer satisfaction levels.

'Think' outside the box

The use of AI and interactivity in packaging is constantly evolving and being explored in new ways. From gathering information, analysing trends and enhancing the customer service experience, to making predictions about consumer needs and behaviour, this technology goes beyond what was ever thought possible before now. The use of interactive features such as augmented reality and QR codes transforms ordinary packaging into a dynamic customer engagement tool, providing in-depth product information, tutorials and even immersive brand experiences. These advancements not only improve the efficiency and accuracy of supply chains but also foster stronger connections between brands and consumers by meeting their evolving demands in innovative and impactful ways. The seemingly unlimited potential in the use of advanced technologies in packaging offers groundbreaking opportunities for enhancing product safety, sustainability and consumer engagement and setting new standards for the packaging industry.

A smart supply chain enables greater agility, efficiency and responsiveness to customer needs by leveraging cutting-edge technologies to optimise processes, minimise risks and drive continuous improvement throughout the packaging supply chain.

Foodservice and tech

Consumers again prove to be a driving force behind the race to the front by businesses showcasing their ability to meet the technological needs of today's customers. While online ordering remains a top technology impacting foodservice in recent years, technology and food are moving beyond this to now encompass many other aspects of dining, including how consumers make decisions about food, interactions with food brands, sharing food experiences and streamlined processes around bookings and service. Technology forms a significant part of the food journey, and consumers are increasingly looking to it to enhance their overall encounter.

Social media has emerged as a powerful platform for food content and has paved the way for influencers and everyday consumers to turn dining into a digital experience. As online engagement with food grows, restaurants must bolster their digital presence and incorporate technology into in-person dining to meet the rising demand for a seamless, efficient experience.





Sustainability amid legislative pressures

While consumers and businesses are strong voices in the global conversation of sustainable packaging, packaging legislation continues to exercise influence in the industry to ensure the manufacturing of packaging delivers on safety for consumers, minimises the impact manufacturers' processes have on the environment and promotes sustainability. However, there appears to be a divide between the groups which needs to be addressed if progress is to continue.





Actions speak louder

Mintel's 2022 Sustainability Barometer report revealed that 82% of global consumers say they try not to be harmful to the environment. However, only 59% said they had recycled packaging in the past week – a significant gap of 23 points. So where is the disconnect and what can be done to close the gap? The packaging industry may hold the key.

Transparency in packaging is valued by consumers and includes clear labelling of materials, origins and environmental accreditation. It is not enough for companies to use eco-friendly images and slogans to represent products as environmentally responsible. This practice leads to undermining consumer trust and confidence through greenwashing.

Recent data suggests 67% of companies implement a sustainability strategy.⁵ For the many businesses aiming for sustainable practices and products, balancing costs against the benefits may make it difficult to implement practices such as using sustainable materials or upgrading processes in production. However, the long-term benefits are significant and will help to lower operating costs through efficiencies, enhance brand reputation and increase customer loyalty. But is this enough to convince these retailers in the meantime that consumers will prioritise their products over those not investing the same level of commitment?

Regulation and the industry

Packaging regulation continues to be a driver in guaranteeing progression in sustainable packaging. Europe are leading the way when it comes to regulation, where the EU's Packaging and Packaging Waste Directive is being updated and expanded to become legally binding. This directive obligates member states to meet targets for the recovery and recycling of packaging waste, with a target of 70% of all packaging to be recycled by 2030.⁶

Potential exists within the regulatory realm for taxes and material bans to be implemented for inaction or lack of adherence. Reputational and financial risks would also be significant factors, with consumers prioritising sustainability in their purchases and investors supporting companies which are advancing sustainable packaging practices.

Overall, regulations play a crucial role in shaping the practices and priorities of the packaging industry, driving innovation, sustainability and environmental protection. Non-compliance with regulations can result in legal consequences, financial penalties and damage to brand reputation.

⁵ Euromonitor International 2023

⁶ https://environment.ec.europa.eu/topics/waste-and-recycling/packaging-waste_en

How Detpak can help you take advantage of these trends

Detpak is a family-owned, Australian business with a global network of manufacturing and sales locations. We design, manufacture and supply the QSR, food service, grocery & convenience, and fast-moving consumer goods industry with world-class packaging solutions.



Fibre sources

Detpak facilities worldwide are FSC™ and PEFC Chain of Custody certified, ensuring traceability from forest to product. Annual supplier audits verify responsibly sourced materials. Detpak prioritises recycled content in paper and board, promoting a circular economy. We also offer non-tree fibre options such as Vanguard, the no added PFAS Bagasse range, utilising agricultural by-products.



Sustainable choices

Navigating the future of sustainable packaging is challenging, given its inconsistency, uncertainty and complexity across products, consumer needs and government legislation. Our sustainability experts ensure you have fitting sustainable solutions for an evolving regulatory environment, providing peace of mind and readiness for whatever the future holds.



Subject matter experts

To stay competitive and meet the evolving needs of today's consumers, businesses need savvy solutions and a current, adaptable approach. That's why, at Detpak, we have subject matter experts to help provide bespoke solutions for your business and guide you through packaging legislation. When you partner with Detpak, we'll take care of your packaging so you can focus on growing your brand.



Supply chain

We work with customers to provide a coordinated approach to the distribution of products via our global supply network, managed by leading supply chain solutions provider Logility. We have extensive experience in distributing product to multi-national companies, navigating customs, shipping and handling requirements to deliver directly into regional distribution centers. For customers with large scale operations, we offer a vendor managed inventory service. This involves working with the customer on forecasting product usage, manufacturing to agreed stock levels and then delivering directly into their distribution centers as required.



Technology and innovation

Differentiation is imperative to every aspect of your business. That's why we pair proprietary global takeaway food packaging insights, with LaunchPad™, our specialist in-house packaging design agency and in-house R&D lab. LaunchPad™ drives innovation and growth exclusively for our customers through bespoke design, materials science, cost engineering and sustainability. So, when you partner with Detpak, we help your brand stand out in a busy market.



References

1. GlobalData Q4 2023 global consumer survey
2. Euromonitor International 2023
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forefront of industry
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