



Insight: Key Trends Driving Global Flexible Packaging



Since its introduction, flexible packaging has grown to become the second largest packaging sector in the United States and Europe. Its characteristics make it easy to see why.

Executive Summary

As the name implies, flexible packaging is defined as any package or part of a package whose shape can be readily changed. Packaging with this level of flexibility adds to the value and marketability of food and non-food products while making a positive impact on the environment by its reduced use of resources.

This white paper explores the market trends that are driving innovation and demand for flexible packaging. It then looks at what benefits digital printing can provide and how a new breed of inkjet printing solutions are enabling users to stay ahead of these trends and affordably produce high-quality, flexible packaging on demand.



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PART 1: WHAT IS FLEXIBLE PACKAGING?

Flexible packaging is any non-rigid packaging structure used to package and protect products—essentially, any package whose shape can be changed to meet the demands of the product inside.



A package producer can use a wide variety of substrates, including films, foils, metal films, paper, and composites, to create flexible packaging that has the necessary barrier properties for the products being packaged. Surface and reverse printing are used as part of the process, as is coating or lamination to make the final construction.

This combination of materials means producers and manufacturers can maximize the practical functionality of the packaging while using the minimum amount of materials.

For example, because flexible packaging is smaller, thinner, and lighter than rigid packaging, it requires 60 percent less plastic to produce and is 23 percent lighter than rigid packaging, as stated in Technavio’s [Global Flexible Packaging Market for Food and Beverages 2018–2022 report](#).

As a result, flexible packaging is becoming the preferred packaging alternative, replacing glass, rigid plastics, paper, and metal.

Today, flexible packaging is most commonly used for food, with the fastest areas of expansion being coffee, snack foods, fresh produce, ready-to-eat meals, and pet food, according to analyst firm PCI Wood Mackenzie’s [Flexible Packaging Quarterly Market Overview](#).

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PART 2: THE BENEFITS OF FLEXIBLE PACKAGING

Flexible packaging is the right packaging at the right time. Not only does it send a positive environmental message, it also keeps up with the demands of today’s consumers.

A Better Impact on the Environment

The Flexible Packaging Association of Europe recently published a report called [The Perfect Fit](#). This reports discusses what the Association calls the “packaging paradox.” This paradox is the “balance between the amount of resources invested in packaging and the resources saved through the protection it provides.”

Use of flexible packaging also minimizes package transport costs between the converter, packer/filler, retailer, and end user.

Keeping Pace with Consumer Trends

Consumers today demand convenience. They want products that can keep pace with their busy lifestyles and provide them with messages and experiences targeted just for them.

“ Packaging Paradox

Balance between the amount of resources invested in packaging and the resources saved through the protection it provides. ”

Here again, flexible packaging is the right solution. It enables brands and producers to swiftly provide packaging in a range of sizes. This packaging can easily be adjusted for different portion sizes that are lightweight and easy for the consumer to open, carry, store, and reseal.

To understand the optimal packaging solution for the environment, one must look at packaging in its entire context—from how it was created to the success of the packaged product and its use.

Looking at packaging in this complete context shows how flexible packaging excels. When compared to rigid packaging, flexible packaging requires fewer resources to produce. Moreover, the reduced weight of the packaging leads to significant reductions in material and packaging costs when compared to rigid packaging.



PART 3: A TIME OF GROWTH

The range of benefits inherent in flexible packaging has resulted in expansive growth, with more expected to follow.

Flexible packaging demand in Europe picked up slightly in 2017 and will subsequently grow by 2.2 percent a year to reach 15.5 billion EUR (18.7 billion USD) in 2021, according to [*PCI Wood Mackenzie's latest study of the European marketplace.*](#)

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In the United States, Research and Markets projects the flexible packaging market to grow from 23.72 billion USD in 2016 to 29.64 billion by 2021, at an estimated CAGR of 4.6 percent. This research report, titled [*Flexible Packaging Market by Material, Printing Technology, Type and by Application*](#), states that growth is due to increasing demand from various end-user industries, including food and beverages, health care, cosmetics, and toiletries.

The functionality and flexibility of this dynamic packaging sector offers huge potential for packaging converters and brand owners seeking to maximize value from their packaging.

PART 4: THE BENEFITS OF DIGITAL IN FLEXIBLE PACKAGING

As with most print products in packaging, the average run length of individual jobs is declining. SKU proliferation and a greater demand by brands to customize the packaging are increasing the need for more short runs.

While well suited for medium to long print runs, setup times and plate costs make short runs with analog print technologies prohibitively expensive. Digital print technologies, on the other hand, can efficiently and economically produce short to medium runs, eliminating the need for minimum order quantities and driving significant growth in flexible packaging.

This ability to print small quantities comes at a time when the number of products offered

by brands today is significantly larger than in the past. Shelves in stores are now stocked with multiple varieties of a product variations that address individual needs, preferences, and locations. These variations increase the emotional engagement with consumers and meet evolving consumer trends.

As a result, there are now many more packaging design variations being produced in smaller quantities.

This is where digital printing excels. Small volumes down to the production of individual packaging prototypes can economically be produced on a digital printer.



In [The Future of Digital Print for Packaging to 2022](#), Smithers Pira estimates a yearly 18.9% growth in volume of digitally printed flexible packaging in Western Europe and 19.9% in North America, between 2017 and 2022.

An excellent example of a customized flexible packaging product is Purina [Just Right](#) dog food. The pet owner provides information on the dog, including its name and a picture.



Digital printing also simplifies the overall packaging production process by eliminating some steps in the pre-press process and potentially eliminating some finishing steps, leading to faster turnaround times.

These faster turnaround times mean brands can easily and rapidly execute promotional campaigns. For example, packaging can be customized for a specific sports event or time of year, or use variable data to create a unique and personalized package targeted at an individual.

Purina then delivers the food formulated for the dog in a bag with the dog’s picture and name on it. This creates a very strong engagement between the pet owner and Purina.

Digital printing also allows users to add unique identifiers to the packaging. These identifiers provide opportunities for anti-counterfeiting to protect the quality of the product, and track and trace programs to easily track items through the supply chain. The identifiers can be anything from QR codes to digital watermarks that brands can also link to URLs and increase engagement with the consumer.



PART 5: THE INKJET IMPACT ON FLEXIBLE PACKAGING

Engineers at Memjet’s OEM partner, Rigoli, have created a package printing solution with the features and functionality needed for brands and converters to produce variable packaging across a wide variety of applications, sizes, and substrates.

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As a fully digital, single pass inkjet print solution for flexible packaging, the MVZ easily addresses the brand and market needs described in this document. It allows converters and brands to easily produce short runs with varying pack sizes and print designs that are in demand today.

Moreover, converters and manufacturers can significantly reduce lead times and implement design changes on short notice, improving the service they provide to their customers leading to a level of customer satisfaction that can attract new business.

The MVZ is easy to integrate into any operation. Its small footprint means it can be placed in-line with finishing equipment. And because it utilizes Memjet printing technology, the printer is available at a low cost of entry, making it an affordable for smaller operations.

Together, these features enable users to realize a faster return on their investment based on increased productivity, lower inventory and reduced scrap costs. This combination of functionality and quality makes the MVZ a powerful solution.

Zsolt Tarjanyi, managing director of Rigoli s.r.l, says, “As the packaging market addresses an increasing demand for varying branding, messaging, sizes and shapes, the MVZ delivers. It has the speed, image quality, reliability and affordability that users now demand—and only Memjet technology can provide.”



PART 6: FEATURES AND FUNCTIONALITY

The Rigoli MVZ flexible packaging printers provide the level of quality needed to meet the demands of today's brands with image quality that rivals offset. Powered by Memjet's single-pass, wide format technology, the solution produces 1600 x 1600 dpi printing resolution at 9 m/min speed, or 1600 x 800 dpi at 18 m/min speed, rivaling offset printing.

The Rigoli MVZ1000 can support media widths of up to 1,067 mm and prints continuous lengths of up to 1000 meters. The printer includes an industrial unwinder and rewinder

that can accommodate jumbo rolls. The rewinding options are printed side up or printed side down, which improves efficiency.

The MVZ printers can be equipped with a buffering unit that allows the printer to be installed in-line with other finishing equipment production lines, including conveyor belts, packaging, cutting, and laminating systems as well as filling equipment. This in-line setup finishing saves steps and time in both the printing and production processes.

PART 7: MAKING FLEXIBLE PACKAGING ACCESSIBLE

In the past, flexible packaging equipment required a large investment and significant resources to operate.

The unique Rigoli MVZ product family marks a dramatic shift in that paradigm, making it

affordable for companies of all sizes to make flexible packaging part of their business without sacrificing speed or quality in the production of the final product.

To learn more about the Rigoli MVZ, visit <http://www2.memjet.com/flexible-packaging>

