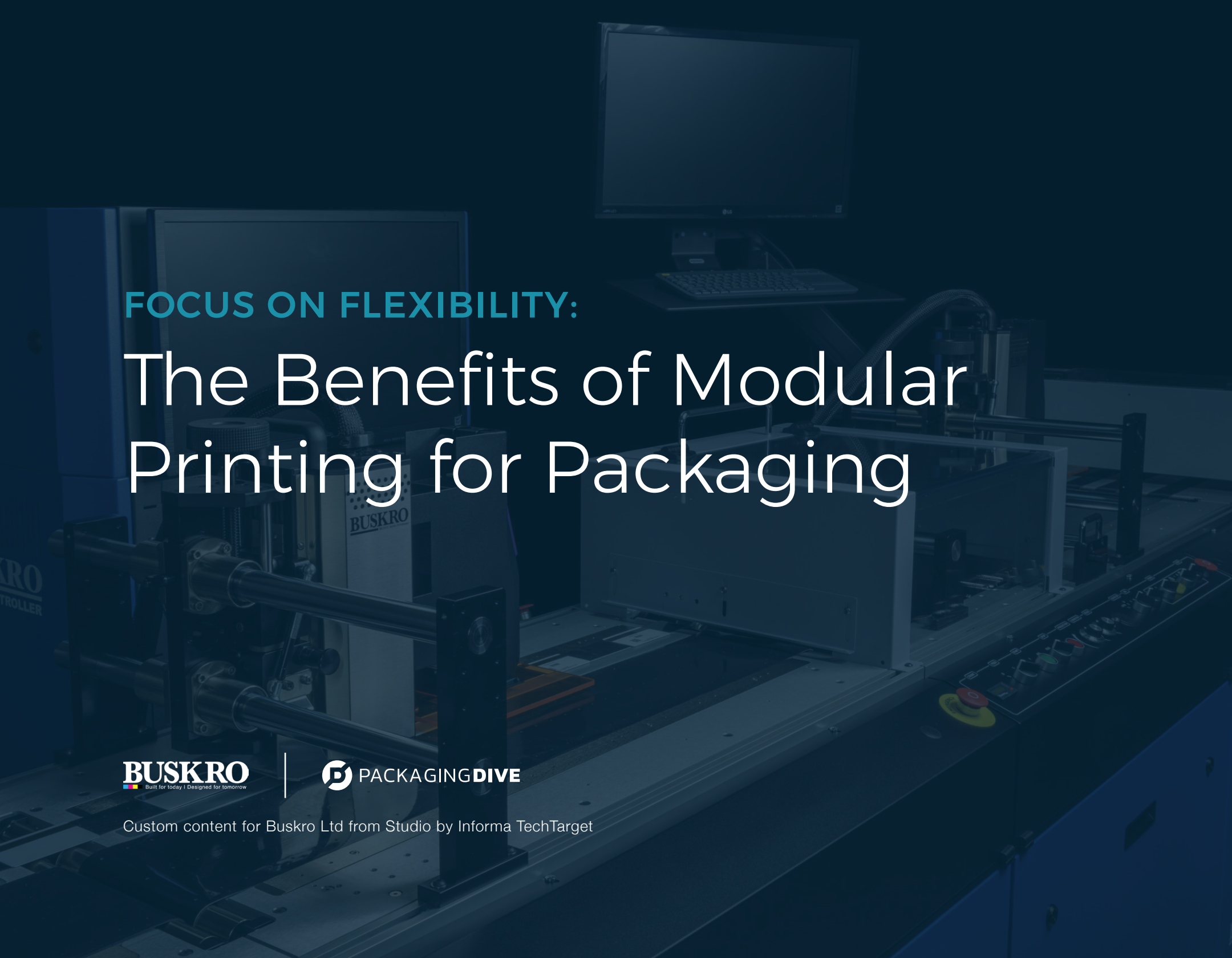




FOCUS ON FLEXIBILITY:

The Benefits of Modular Printing for Packaging



Custom content for Buskro Ltd from Studio by Informa TechTarget

Economic headwinds, regulatory updates, and changing consumer expectations. These are just a few of the challenges brands face when producing and packaging their products. The days of filling a single carton size and packing it full of foam peanuts are over, and customers — whether they're major retailers stocking pallets or end consumers unboxing a single delivery on social media — expect quality, traceability and personalization.

Brands, meanwhile, need to balance the right-sizing of their packages with sensible corrugate inventory levels. As 2D barcode requirements approach, brands must prepare to include QR codes or RFID solutions directly on packages. Yet all these capabilities must be achieved in an environment of rising costs and constrained margins, which makes major packaging equipment investments difficult.

How can brands manage these competing priorities? The answer is to **lean into flexibility with modular printing solutions for packaging**. By emphasizing nimble operations with modular machinery, brands can ensure compliance with traceability regulations while providing appropriately sized shipments to a range of customers, all

without settling for massive inventory levels that monopolize budgets and warehouse space.

Modularity also delivers the designed, personalized experience consumers now expect from e-commerce. That's something brands can leverage in a time of declining brand loyalty. Notably, this can be achieved in a way that minimizes capital expenditures (CapEx) and production line downtime. At a time when every dollar counts, these modular printing solutions are crucial for brands across industries.

“Like Einstein said, ‘The definition of genius is taking the complex and making it simple,’” says Christophe Merlier, Vice President of Research and Innovation at Buskro, a leading solutions provider in printing, tabbing/labeling and card processing. “With modular solutions, you have the flexibility to adapt to different requests from your end customers without reinventing the wheel.”

In this playbook, you'll learn how modular printing delivers flexibility that helps brands keep up with evolving regulations and consumer preferences.

Flexibility supports cost management and scalability

Brands are navigating an inflationary environment with tariffs and general economic uncertainty. One result has been [sluggish sales](#) of packaging equipment despite consistent demand for machinery. By implementing modular solutions, brands minimize the impact on their CapEx because they can invest in a smaller piece of equipment that can service multiple lines, package sizes and material types.

For example, Buskro's [ARGO](#) is a modular inkjet system that can be reconfigured like building blocks and hosts up to 64 different nodes. This solution moves seamlessly from corrugate to labels to product marking, with integrated software and simplified hardware that adapts to multiple production requirements.

“Modular hardware means common components, and common components result in lower costs and greater flexibility,”

—Charles Tonna, CEO, Buskro

This flexibility means a modular solution is not only a lower-risk investment than a fixed, one-size piece of equipment — it also allows brands to scale at the pace they require. These systems can print different graphics and colors and adjust to various materials and package sizes, thereby producing multiple items as quickly as orders come in. As demand changes or new customers come on board, brands and manufacturers can pivot and grow immediately.

With a modular solution like ARGO, you can manage market uncertainty because you can start small, knowing that your solution will evolve easily,” Merlier said.

In fact, modular inkjet platforms are far more than traditional marking tools for lot codes, expiration dates and simple barcodes. Solutions like Buskro's transform packaging into a flexible communication and data layer. Brands can change text, graphics or promotions, and add 2D barcodes and QR codes, all handled dynamically, from one package to the next, without slowing production or requiring separate print runs.

- For OEMs, this could mean handling hundreds of different box sizes depending on production needs.
- For consumer brands, it supports simplified printing of numerous graphics, logos and colors, all without requiring large minimum order quantities that can drive up inventory costs and take up large amounts of warehouse space.

By eliminating reliance on pre-printed inventory and enabling real-time content changes, brands extract greater value from every package — moving well beyond static marking into intelligent, data-driven packaging. As they seek out more customers, their packaging equipment can meet those changing needs quickly and without requiring additional equipment

Advantages of Modular Printing:

- Scalable, pay-as-you-grow architecture.
- Rapid reconfiguration and multi-orientation flexibility.
- Independent, serviceable modules for reduced downtime.
- Centralized data control with synchronized print nodes.
- Seamless integration with existing production lines.
- Future-ready platform adaptable to new inks, codes, and regulatory requirements.

investments, a larger footprint, or costly software or hardware integrations.

Modular solutions minimize CapEx while expanding brands' capacity to serve more customers, making them a win-win in a volatile economic environment.

Modularity meets regulatory and traceability requirements

Consumers are demanding more product information, whether that's end customers seeking data on sustainability metrics and product materials, or retailers requiring safety and traceability information for any potential recalls. Regulations are changing as well:

- 2D barcode scanning will be required of all retailers by the end of 2027, a shift known as [GS1 Sunrise](#). This change will greatly expand the already-growing use of these barcodes that hold vast amounts of product data.
- In the EU, new regulations such as [Digital Product Passports](#) are also making product traceability requirements more urgent.



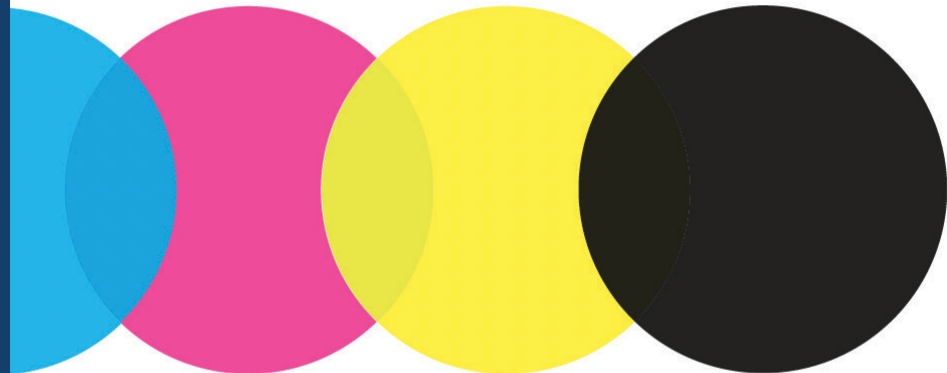
Brands and manufacturers must therefore increase their use of 2D barcodes, such as QR codes, and RFID tags. A modular printing solution simplifies adding these features to every production run.

“How do you know a product is authentic? By scanning a QR code and identifying that product’s serial number. With a solution like ARGO, you have a library of every barcode on the planet included in the software, and you can pair it with RFID tags and the printing process in one turnkey solution.”

–Charles Tonna, CEO, Buskro

This traceability allows consumers to verify safety information, how a product was made, where and when it was transported, and much more. Manufacturers can change this information for each unique production run with a modular system, making it faster and easier to meet these requirements. Integrated software and hardware in a modular solution are key to seamlessly connecting RFID tags or 2D barcodes to the digital data customers are seeking.

The emphasis on traceability will only grow with time. Onboarding this capability now positions brands to meet regulations and their customers’ expectations today and well into the future.



Modular doesn't mean DIY

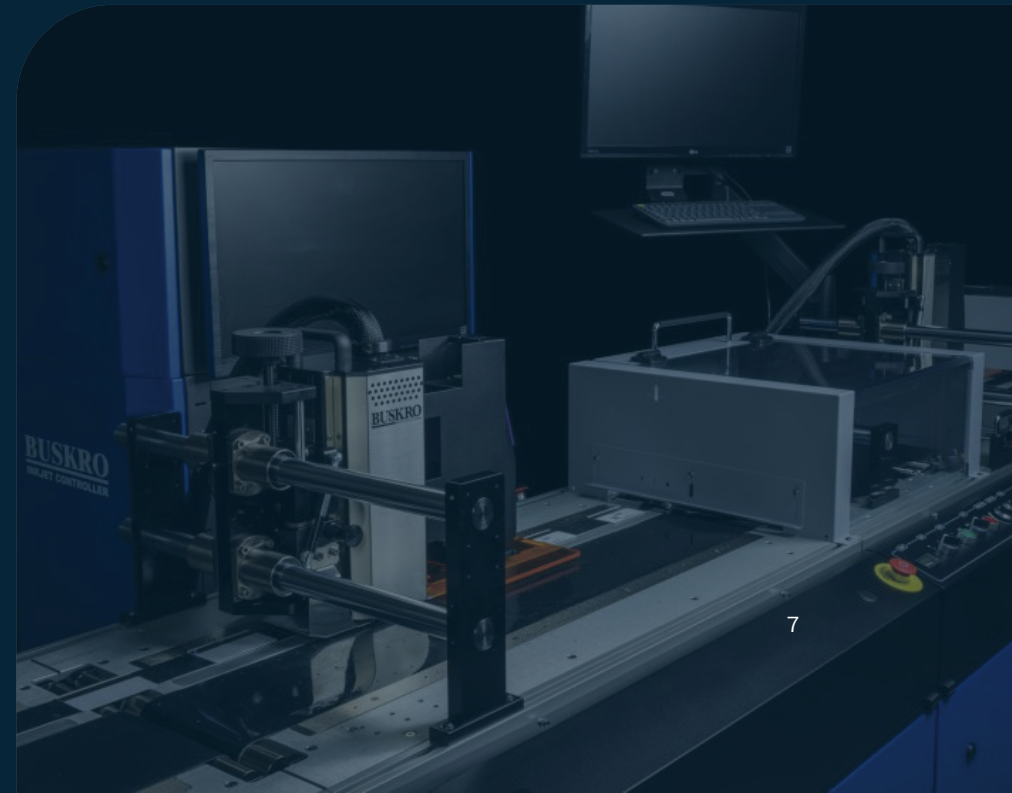
Modular printing solutions are meant to be reconfigured based on production needs, but that doesn't mean users must figure everything out on their own. With a partner like [Buskro](#), brands get an all-in-one solution plus training and continuous support.

"It's not just about technology, it's about trust," says Buskro CEO Charles Tonna. "We have technicians who travel the world and 24/7 support services."

The right partner will also work with brands to ensure their unique printing and packaging needs are met by the modular components of their system — whether that's multiple printing nodes, RFID tagging, or support for multiple package sizes.

"At Buskro, we have decades of experience solving challenges, and we thrive on finding solutions to the complex. We're not going to walk away when it's difficult. We make it work."

—Charles Tonna, CEO, Buskro





Ensuring an outstanding customer experience with flexible solutions

Just as expectations around traceability have changed, so too have customer expectations for personalization. Brands need their packaging to stand out, particularly as white labeling expands and brand loyalty [changes](#). The growth of direct-to-consumer (DTC) shipping has also fueled “unboxing” trends, and these moments now form a critical part of the brand experience.

Modular printing and packaging solutions are uniquely suited to meet these needs, as they can produce different designs, logos, and colors quickly and easily. Seasonal graphics, promotions, regional-specific messaging, and even individualized designs (think soda bottles with someone’s first name on the label) can be managed with modular solutions. If a manufacturer has various product lines or brand names, those can be printed simply and with little to no downtime.

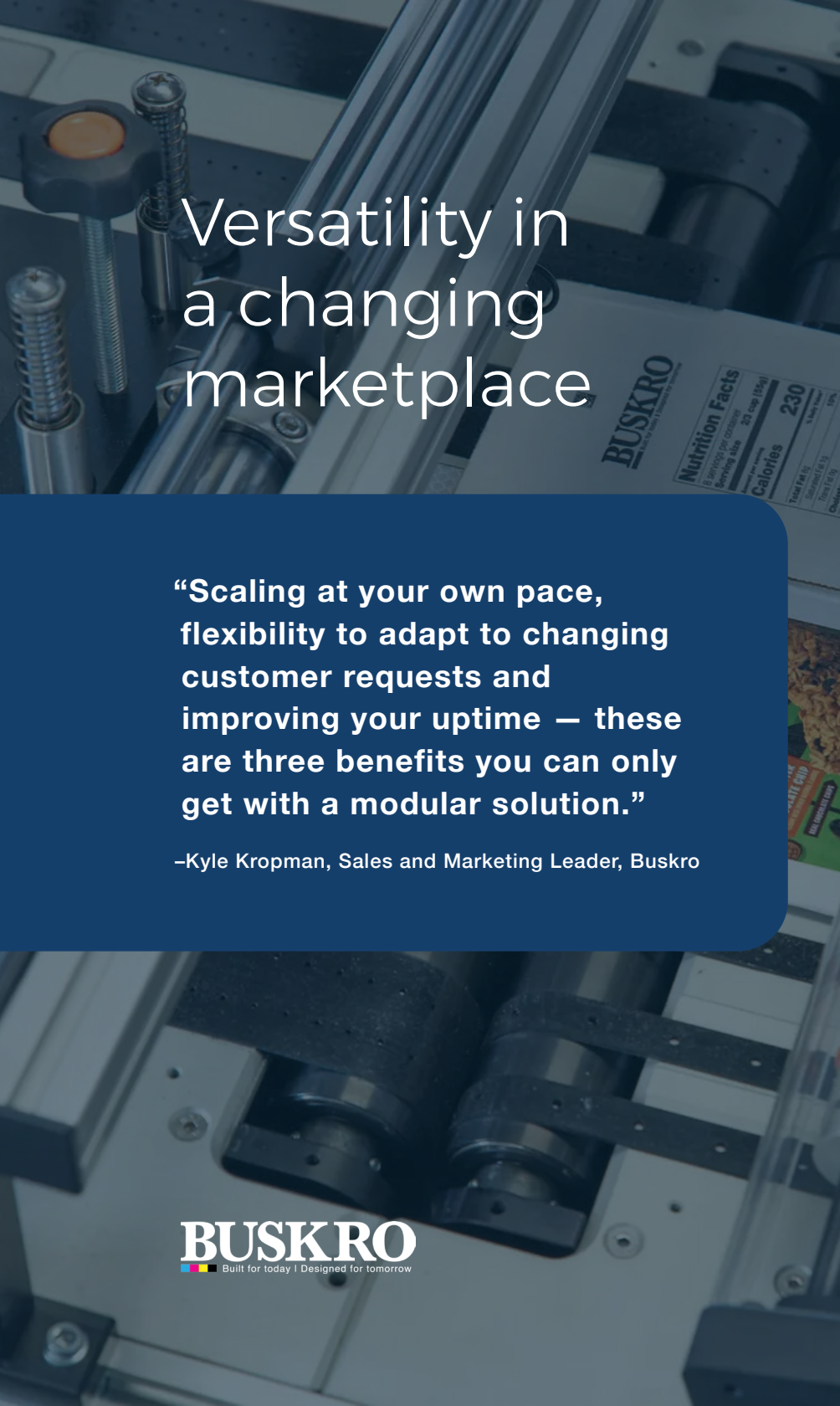
Beyond aesthetics, personalization can also expand brands’ footprints by meeting basic product information needs — notably multilingual requirements.

“A consumer goods producer in France, for example, can print labels and packaging in French-Belgian, French-German and French-Italian dialects quickly and easily.”

—Christophe Merlier,
Vice President of Research and Innovation, Buskro

This level of personalization is a key competitive advantage, and it increases engagement with a product or brand. With modular solutions, brands can achieve these benefits without costly infrastructure changes to personalize items or packages. They also don’t have to conduct massive print runs or stock large quantities of corrugate or labels, both of which run counter to the personalization trend and can leave brands exposed with excess inventory.

The flexibility and responsiveness of modular printing allow brands to expand their customer base and make a lasting impression while managing costs as consumer preferences evolve.



Versatility in a changing marketplace

“Scaling at your own pace, flexibility to adapt to changing customer requests and improving your uptime — these are three benefits you can only get with a modular solution.”

—Kyle Kropman, Sales and Marketing Leader, Buskro

Brands have opportunities to future-proof their business. The need for high-quality packaging that protects products and provides traceability data isn't going to disappear, and brands that provide authenticity information will be poised to meet new regulations, protect their reputations and respond to customer expectations.

They must also adjust to shifting order sizes, DTC expectations and more as economic conditions change. At the same time, they need to protect their own margins and make wise investments in equipment and inventory. With modular solutions, they can manage these various business priorities.

These capabilities allow brands to respond seamlessly to new customers, changing customer demands and any market volatility. With the right solutions and partners, this level of flexibility doesn't mean figuring it out on your own; it sets brands up for lasting success with the solutions that make sense for their business.

[Contact Buskro](#) to explore modular printing solutions for your operations.

About Buskro

Buskro Ltd. is a Canadian manufacturer with over 50 years of experience in industrial inkjet printing and variable data management. With a global network of dealers and partners worldwide, Buskro designs and builds modular inkjet and print automation systems for applications including packaging, labels, mailing, and product marking. By combining proven inkjet expertise with advanced data control and workflow capabilities, Buskro helps manufacturers improve efficiency, flexibility, and overall return on investment.

Learn more at www.buskro.com



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