Market Opportunities for Digital Printing

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INTRODUCTION

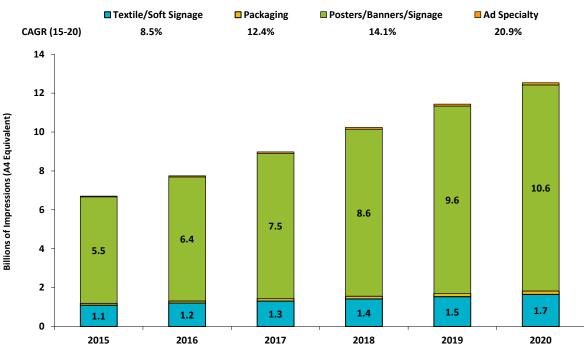
Innovations in printing hardware and workflow software continue to expand market potential, making it easier than ever to meet brand owners' needs. Shorter runs, more targeted versioning, and greater interactivity are becoming necessities in today's market. Brand owners are demanding solutions that enable more accurate pricing, make it easier to customize, provide product information in a timely manner, and comply with ever-changing laws and regulations. They are leveraging digital technologies as a complement to offset or flexo printing to meet many of today's market demands, including shorter product cycles, increased personalization, greater versatility, and smaller quantities.

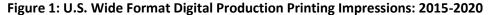
The wide format digital market is quite diverse, and it is further expanding all the time. It covers applications like posters, free-standing point-of-sale displays, signage, vehicle/building wraps, decals, and banners. These applications can also be produced on a huge range of media types, including paper, hard board, plastics, glass, vinyl, metal, front-lit/back-lit film, and wood. Mirroring the expansion in applications and media types, the range of devices used to produce these items is becoming increasingly diverse to include different substrate feeding mechanisms (e.g., roll-fed, flatbed or hybrid devices), moving heads or moving tables, and machines that accommodate solvent, eco-solvent, UV-cured, aqueous, or latex inks.

Although all digital presses print wide format applications onto large media types using inkjet printheads, the technologies are quite varied. While some machines will handle fleet and vehicle wraps, others are designed for point-of-sale signage or outdoor graphics. Still others are designed for package printing or indoor/outdoor displays. The bottom line is that the wide format installed base is expanding all the time.

DOUBLE-DIGIT GROWTH RATES

The U.S. wide format production printing market is poised to experience a significant amount of growth as digital printing moves from niche applications to more widespread use. Digital printing makes it possible to improve workflow, expand marketing initiatives, and get products to market faster than ever before. According to InfoTrends' most recent forecast data, packaging, posters/banners/signage, and ad specialty applications represent double-digit growth opportunities for digital printing technology.





Source: U.S. Digital Production Printing Application Forecast: 2015-2020, InfoTrends 2016

The healthy growth in the digital wide format sector can be partially attributed to increasing adoption of these devices by printers from outside the conventional sign and display market. At the same time, however, the adoption of these machines by non-traditional printers is only serving to further increase the complexity of the overall market.

THE LATEST APPLICATIONS

With soft signage, hard board and plastics, and polypropylene alternatives to PVC, today's brand owners have more choices than ever when it comes to printing materials. Tension fabric display materials are now available in a wide range of sizes, for front or back-lit use. When used for signage, displays, or vehicle wrapping, some materials may be laminated for added durability. In-store displays and signs are also vital for reaching consumers and influencing decisions at the point of purchase. In the packaging industry, demands for prototypes, shorter runs, personalization, customized printing/cutting, and interactivity are driving new market developments. Competition is fierce on retail shelves, and marketers are exploring digital printing to capture shoppers' attention and share of wallet. In many cases, brand owners change their packaging designs more often than they change their actual products.

There are many label and packaging materials, and a variety of corrugated and flat stock cardboards are also available for use in POP and corrugated packaging applications. Today's technologies enable brand owners to create design-oriented products that will really attract buyers' attention. Businesses of all sizes can now create short-run prototypes to help gauge the success of various marketing initiatives. Compelling signs, banners, window/floor graphics, and other displays can influence consumers' decisions at the point of purchase, and an expanded range of finishing options enable firms of all sizes to stand out and improve brand recognition. Here are just a few examples of how packaging and displays can be used to increase the return on marketing investment:

- In movie theaters, promotional standups that advertise new releases can be configured with eye-catching trays that hold candy, 3D glasses, or samples of promotional items.
- At hotels and restaurants, wine bottles can include labels that are customized with names or images. These labels might even be personalized for special occasions like weddings or very loyal guests.
- Today's consumers are demanding a more personalized experience, and savvy marketers are testing out a number of unique and innovative ideas for a fresh marketing approach. For example, the packages for virtually all consumer products—everything from crayons to golf balls to foods/beverages—can easily be customized to the end customer's specifications thanks to digital technology.

A MOVEMENT TOWARD CUSTOMIZATION AND PERSONALIZATION

There was a time when high-end production printers were in the best position to capitalize on wide format printing opportunities, but this is no longer the case. Prices for devices, supplies, and production have been steadily dropping even as technologies continue to improve. Today, even small and specialized shops can get into the game. In some cases, smaller shops may actually have an advantage over their larger counterparts—they are more nimble and flexible, enabling them to change direction on a dime. Furthermore, they are often better equipped to offer specialization, and this feeds right into current market demands for niche applications, shorter runs, increased versioning, and customization/personalization.

In 2015, InfoTrends issued a study entitled *The Future of Digital Packaging Workflows*. The survey results show a clear shift toward more customization, personalization, and versioning. When asked to specify their agreement with various statements, brand owners most strongly agreed that customized/ personalized packaging improved product sales and that up-to-date information technology was essential.

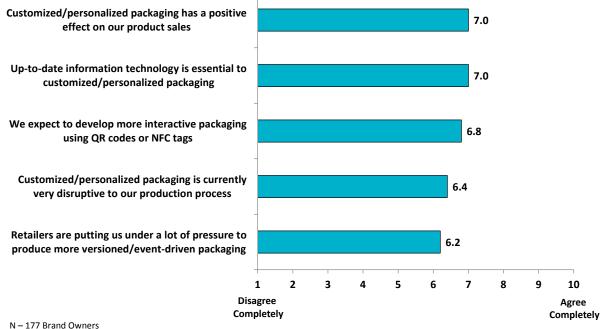


Figure 2: To what extent do you agree or disagree with the following statements?

Source: The Future of Digital Packaging Workflows, InfoTrends 2015

THE MARKET OPPORTUNITY

Digital printing—also called print on demand—is transforming the packaging, signage, and display supply chain by helping to cut costs, shrink cycle time, and minimize errors and defects. Using fixed images as well as variable data, digital technology offers the ability to create versions and respond rapidly to changing design, brand, security, and regulatory requirements.

Given that this is such a complicated and diverse environment, it comes as no surprise that the entire business workflow—from order input to finished products on the shipping dock—is not always wellunderstood (let alone fully optimized) in the wide format sector. Although the idea of workflow automation is better established in smaller format commercial and digital printing applications, it is less understood in the wide format market. One key message is that although many businesses remember to account for their equipment, but they forget that workflow management and workflow automation can affect the bottom line too. This document further explores how digital print production can complement cost-cutting initiatives by delivering predictable and accurate performance, eliminating waste, and reducing variability. It also touches on how Esko's solutions can help improve all steps of the workflow process.

THE BENEFITS OF DIGITAL

The benefits of a fully digital workflow—of which digital printing is a key component—can become a strong asset to wide format printers, brand owners, and marketers in terms of strategy and production. Opportunities exist in a variety of markets, including healthcare and pharmaceuticals, retail, hospitality, manufacturing, and technology. The value proposition is clear—digital printing offers flexibility in marketing, brand security/authenticity, reduced waste, and time/money savings.

FLEXIBILITY IN MARKETING, LOYALTY, AND INTERACTIVITY

Brand owners are under enormous pressure from their channels (e.g., retailers, distributors, and wholesalers) to reduce costs, comply with regulations, and increase speed to market. Digital production makes it easier for brand managers to embrace the complexity that can come with smaller quantities. An end-to-end digital workflow that integrates buyer and manufacturer IT infrastructures eliminates expensive setup costs as well as long lead times for short-run versions or one-to-one personalization. Furthermore, marketers can use packaging, signage, and displays to engage in two-way communication with end customers via interactive dialogues and online communities. Today's marketers are creating products with quick response (QR) codes, augmented reality (AR), and near-field communication (NFC) tags to promote brand recognition, increase value add, and improve customer interaction.

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CUSTOMIZATION FOR TARGET MARKETS OR EVENTS

Marketers understand that producing unique printed products creates a wide variety of opportunities while also ensuring brand and image integrity. Apart from production quality and convenience, printed products can include hotel/restaurant names and images, or can even be personalized for special occasions. Items that are versioned for specific markets and those that incorporate multi-lingual support are proving to be tremendously valuable to brand owners. Furthermore, marketers can now easily create seasonal promotions for holidays like Christmas, Easter, Valentine's Day, and Mother's Day.

PERSONALIZATION AND VERSIONING

More and more customers are approaching converters and print providers with specialized jobs involving consecutive numbering, bar coding, multiple languages, and variable text that cannot be completed on conventional printing presses. Converters are beginning to understand the potential business impact of digital technology, and they can no longer ignore the increasing demand for digital.

PRODUCT TESTING

New products are the lifeblood of nearly every company's growth strategy, not to mention a source of enormous investments in development, research, and advertising. The success of a new product is often largely dependent on effective packaging, signage, and/or displays. Digital printing technology enables companies to accelerate product testing processes and procedures while also shortening the associated time to market.

LOYALTY PROGRAMS, GAMES, AND COUPONS

Digital printing can help to increase a consumer's interaction with a brand by printing easy-to-read special codes, coupon offers, or other unique or personalized information on packages, displays, signs, or banners. Special programs can enable consumers to collect points that can be redeemed for cash rewards or other incentives. Variable QR codes can enhance the customer experience while also preventing counterfeiting by linking consumers to a website or mobile app that tracks and manages points and rewards.

DIGITAL FROM A TO Z

For all of these benefits to be realized to their full potential, stakeholders must focus not only on digital printing or digital finishing equipment, but on all of the steps in the production workflow prior to and after the printing press—from order input to shipping dock—digitizing and integrating every step in the production flow.

PRINTING IS ONLY ONE STEP IN THE PROCESS!

The workflow process doesn't start with printing and it doesn't stop immediately after, either—many printed materials must be contour-cut or routed, framed, and mounted. Across the board and regardless of application, today's consumers are demanding finished products, and this trend will likely accelerate as the market becomes increasingly more competitive. Finishing is no longer an option; it is a must for digital printing to march forward. Finishing's value-added benefits also enable printers to develop consultative relations with clients that extend well beyond print alone. There are a wide range of digital cutters/routers with various cutting heads and tools available in today's marketplace, so industry players must consider the applications that they are hoping to produce when making decisions about equipment investments.

From a workflow perspective, it is important to design with finishing in mind to eliminate waste creation along the path. With a clear understanding of the finishing process, packaging and display design can be optimized for maximum performance and minimal waste.

THE IMPORTANCE OF DEVICE AND SUBSTRATE KNOWLEDGE

In line with understanding their applications and the types of devices that they will require, wide format print providers also need to develop an understanding of the substrates that will be in use. The range of digital wide format print applications has increased dramatically in just the past two years, and we have seen an increase in the number of UV, latex, and sublimation printer offerings. These devices enable print service providers to produce their offerings on an even broader array of substrates, and it is just as important to understand these materials as it is to understand the devices used to produce them. Materials like metals and wood can have different finishing requirements than textiles or vinyl, and it is also important to consider the ultimate location of the finished product. For example, outdoor applications will require special finishing for increased durability against weather functions. Developing a greater understanding of substrates can also make it easier to more accurately predict time to market, which can in turn improve client satisfaction.

EQUIPMENT EXAMPLES

A number of manufacturers in the wide format sector have introduced devices that are designed to improve print quality, reduce downtime, expand the substrate range, and enable the expansion into new markets. Here are just a few examples:

- Agfa's family of hybrid Anapurna printers includes the H3200i LED, the FB2540i LED (flatbed), and the RTR3200i LED (roll-to-roll). These devices are designed for printing on rigid as well as flexible media types. In addition, Agfa's new air-cooled LED UV curing system offers an alternative to mercury lamp curing. This makes it possible to print on a broader range of media type while saving energy, increasing uptime, and reducing operating expenses.
- Canon's imagePrograf Pro-6000S is designed for production signage and commercial photography. This 60" 8-color printer features a 12-channel integrated compact printhead, a Lucia Pro inkjet, a high-precision mechanical platform, and the L-Coa Pro image processing engine. The device incorporates a new ink set with pigments that enhance reds, reduce graininess, and improve dark areas.
- EFI's new high-volume, 5-meter VUTEk 5r LED roll-to-roll printer runs at speeds up to 4,896 square feet per hour in resolutions up to 1,200 DPI. The 5r device's X-Y bi-directional slitters eliminate the need to move jobs to a cutting table for finishing after printing. The printer also features optional light colors and white ink for extra versatility when printing on transparent or colored media.
- Fujifilm's Acuity Select 20 Series enables graphics printing on rigid, flexible, and roll media so service providers can expand their business opportunities. Meanwhile, the Inca Onset X Series facilitates long print runs with consistency and reliability. The Onset X₃ device features Fujifilm Dimatix drop-on-demand printheads, which enable the production of high-volume images onto a wide variety of media types.
- Mimaki's UJV55-320 Superwide (single or dual-roll) printer includes white ink for printing on transparent or colored media. It offers a high degree of opacity in day or night applications, making it ideal for creating oversized graphics. It uses Mimaki's LUS-120 UV-LED inks for scratch resistance and 170% flexibility for foldable banners.
- Mutoh's ValueJet 1638UH hybrid printer provides production capabilities using UV-LED curing. The staggered dual printhead design provides high print speeds, and dual UV lamps offer cure times that meet production needs. The device can print on roll media as well as rigid substrates up to a half-inch thick. The CMYK plus white and varnish ink options are designed for print packaging prototypes, POP displays, and indoor signs.

ELIMINATING WASTE

WORKFLOW

As wide format printing technology has advanced with new inks and media types, the need to efficiently prepare files has been driving the adoption of advanced workflow solutions. These workflows, combined with cloud-based web-to-print solutions, enable a more efficient supply chain and smoother interactions between design agencies, print providers, and customers. Since each system will have a different workflow, automation and the physical handling of products must also be taken into account. This is no easy task in today's complex market. No two workflows are the same, and the methods for moving a file from design to shipment will vary widely from one company to the next based on a number of factors:

- The type(s) of material(s) being used
- The type(s) of equipment on the shop floor
- The type(s) of application(s) being produced

There are a number of steps in a typical workflow. These may include:

- Structural and Graphic Design
- Customer Approval
- Estimation
- Prepress
- Merge Graphics on the Print Sheet
- Production Scheduling
- Send Files to Print
- Cutting
- Pack and Ship

WASTE IS EVERYWHERE!

All workflows are different, but each and every one will create waste. Furthermore, all steps of the process—from order entry over prepress to delivery—will generate waste. Waste is recognized in many different forms. It can slow down production, create delays and rework, increase rejects and equipment idle time, and compound the amount of time and effort required to complete a job. At the end of the day,

waste is really what you don't want to pay for. This underscores the importance of workflow automation and supply chain management. Most businesses remember to take their equipment into account, but they forget that the workflow process can have a major impact on the bottom line.

Figure 3 below highlights a number of common workflow steps. It is important to note that this illustration does not differentiate for the many different workflows that are used in sign, display, or packaging production runs. It is merely designed to create awareness about the overall effectiveness of a typical shop floor.

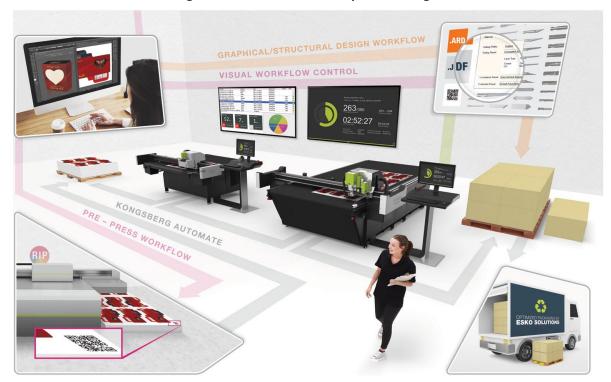


Figure 3: Esko's Modular Shop Floor Design

Source: ESKO

When investing in production equipment, it is important to keep tabs on the overall production flow. Regardless of the number of steps or the intricacies involved, the entire workflow is connected from the point at which the file arrives until the finished product is approved by the customer. Accurate estimations are important for on-time delivery and exact pricing, underscoring the importance of supply chain management. The key to workflow efficiency is to identify any areas of waste and standardize the process, and Esko solutions are a valuable example of how businesses can convert waste into valueadded time every step of the way. Identifying waste does not need to be difficult, but understanding each step of a workflow and how all of those steps perform as a chain is often complex. In some cases, optimizing one part of the workflow can create issues elsewhere.

Structural Design and Approval

At the beginning of the process, a good structural design is important for efficient communication and quicker approval. A lack of structural design skills can represent a major area of waste. Customer requests are sometimes turned down because the display or package is too complex to design and produce, and turning any offer away is obviously not good for business. The approval process can take a long time because designs are often presented "in cycles" until the customer is 100% satisfied.

To help eliminate these pockets of waste, Esko offers the following four technologies:

- <u>ArtiosCAD Display Store</u>, an online store with hundreds of resizable, production ready, display POP designs, accessible to anyone.
- With <u>ArtiosCAD</u>, the user can offer a complete design that includes a fit shipping container around the final products.
- <u>Cape Pack</u> is a modular suite of palletization software that can help optimize logistics and transport by determining the best product size, case count, case size, and pallet load.
- <u>Studio Visualizer</u> offers technically correct views to ease the customer approval process. Its 3D view capabilities can reduce the number of approval cycles as well as the number of physical samples.

Although these solutions can be deployed individually to address specific areas of waste, they become a streamlined and integrated "design to ship" workflow when used together. Customers receive technically correct 3D designs, also including the secondary layer, stacked on a pallet or in a truck. The "design to ship" process enables designers to add value to several steps of the workflow. This value extends to the packaging department, which receives tailored packages on demand and can focus on maintaining short delivery times.

Prepress

Graphical files can arrive from many different sources in various formats. They must be checked, corrected, and nested prior to moving them to print to avoid delays and extra costs. Unfortunately, manual checks often create a bottleneck and waste valuable time during the prepress process. This waste is often falsely identified as press idle time, press quality rejects, material waste, or capacity constraints. With Esko <u>Automation Engine</u> and <u>i-cut suite</u>, all graphic files can be converted to PDF and moved through prepress on top of an editor for consistent quality and fewer rejects. Replacing operators with standard work in prepress makes good business sense because time estimates are now standardized and the file quality is consistently high. Standardizing prepress on a semi-automatic or completely automatic basis also eliminates capacity constraints—no matter how many files arrive, a company can easily take on more volume.

Cutting Table

Operating a cutting table can be a complex manual task. Job setup can easily take up to 30 minutes and result in hours of equipment idle time, especially when many short-run jobs must be processed each day. Finding the right cutting or creasing tool for a given material is not always easy, and the quality of the result may heavily depend on the skill level of the individual operators. To compensate for rejects, some companies will even add a few percentage points of over-production to each job. This is a heavy load for any bottom line.

By replacing complex manual tasks with standardized work, the traditional operator can become a supervisor. Esko introduced Shared Resources to support the no-reject philosophy. This technology automatically takes over the job setup process and selects the correct tool in under a minute. The risk of lower quality is minimized by a standardized production process. Consistent high quality output is secured, regardless of who is operating the cutting table.

User Experience

In every step of the workflow, user experience is a big contributor to an optimized production flow as well as waste reduction. <u>Kongsberg</u> cutting tables are an example of a user experience that is engineered to support the operator. These production tables include vacuum control and a traverse joystick to avoid unnecessary walking and increase operator efficiency. The operator console has a graphical user interface to report batch countdown, and the icon-based format is visible from a distance so the operator can perform jobs away from the table. If an operator's assistance is required, the screen will turn red.

Each step in the workflow can be optimized, and sometimes merged with other steps to create a more efficient workflow. In some cases, some steps can be completely replaced with automation to ensure a standardized file flow. <u>Automation Engine</u> is designed to standardize the complete workflow by pushing the files through pre-defined automated workflows, removing multiple sources of waste altogether.

Aligning People and Equipment

Communication between production equipment and the people working on the shop floor can bring productivity and alignment. <u>Device Manager</u> is designed to communicate production information to the shop floor, including estimating, reporting, and real-time job progress. Device Manager makes the workflow visible to everyone on the production floor. In a digital production environment that is optimized for short run production, it is essential to maintain an overview of all steps in the workflow. An island of automation will offer little benefit in a sea of waste.

INDUSTRY CASE STORIES

Due to its ability to improve efficiency during every step of the workflow process, Esko has a number of clients who have shared their positive experiences with the company's offerings. This section provides a brief overview of some recent partnerships.

Data Image Group Ltd.

In November 2016, Data Image Group Ltd. invested in Esko's Kongsberg C automated robotic production system. Data Image Group chose this platform so it could keep pace with rapidly evolving customer requirements, including more creative designs and broader substrate options. In addition to working with a variety of Esko software solutions for a highly automated prepress workflow, Data Image Group has two Kongsberg XP cutting tables for its digital work.

This production capacity will be further expanded with the addition of a Kongsberg robotic cell. Robert Farfort, Director of Data Image Group, elaborates, "Automation is really important to the future of our business and ensuring that cutting keeps pace with our accelerating print capabilities. By being able to automate what has been a predominantly manual process of loading and unloading materials, we can gain greater efficiencies from our cutting operation."

Automation is further improved with Esko's Device Manager, which makes it possible to monitor job status in real time while also managing and prioritizing queues for all connected devices, including Data Image's new Kongsberg C table. These investments have enabled the company to reduce lead times, intelligently manage short production runs, reduce material waste, and optimize equipment output.

Great Big Color

In August 2015, Great Big Color purchased an Esko integrated finishing solution, which includes software and a Kongsberg cutting table. This investment has enabled Great Big Color to keep up with its flatbed digital printing system while sustaining production efficiencies and high quality. Although the company purchased its first Kongsberg table when it began creating point-of-purchase materials, the company has since increased its printed throughput and needed to upgrade its cutting capabilities. Great Big Color works with a variety of substrates, including foam and board products. The Kongsberg XP table supports the company's output quality requirements.

According to Tina McLaughlin, President and Owner of Great Big Color, "We had invested in a fast flatbed digital printer that was capable of working with 5 x 10-foot materials. It was a monster at pushing out products, so we really had no choice but to invest in a finishing table that could handle that output. The Kongsberg XP offered speed, price, and quality, and we also liked the size."

Great Big Color has also invested in Esko's i-Cut suite to make its workflow more efficient. The company is using automation tools as well as preflighting and a layout tool that makes it easier to quickly create cutting instructions.

Holland & Crosby

In May 2016, Holland & Crosby acquired two Esko Kongsberg C64 finishing tables to keep pace with its high-speed flatbed printers. One of the tables has been outfitted with automation on the front end, while the other has been fitted with a router and an adaptor for roll stock.

Scott Crosby, VP of Sales and Marketing for Holland & Crosby, notes, "The Kongsberg C64 offered the best combination of quality, speed, and reliability as well as a vision for going forward. We are ultimately seeking lights-out automation, and Esko is working hard to get there for us."

Holland & Crosby previously invested in Esko's i-Cut suite, and the company hopes to refine the system so it can preflight jobs faster and more efficiently, while also imposing jobs for more efficient use of substrates and printing time. Crosby continues, "Printing used to be our primary bottleneck, but now we got bogged down with finishing, distribution, and getting our orders out and preflighting them. We're still trying to improve our workflow, and the i-Cut suite should help in that regard."

Impulse Graphic and Display Solutions, Inc.

In December 2016, Impulse Graphic and Display Solutions installed Esko's Automation Engine to reduce operator time as well as automate step & repeat layouts to its printers and Kongsberg cutting tables. The company's comprehensive services include project management, creative solutions, printing, kitting and warehousing, and shipping/installing.

Impulse has also invested in Esko ArtiosCAD to add structural design capabilities to its services. Alexander Cachia, President of Impulse, states, "We wanted to customize our workflow based on the scope of work. We also wanted our creative department to take advantage of other Esko software tools that tied into prepress. With the implementation of Esko ArtiosCAD, we can create structural designs in 2D or 3D an also link those files to Automation Engine to output to our printers and to the Kongsberg tables. This makes the prepress operation very seamless."

EDUCATION IS PARAMOUNT!

As the number of inks, substrates, workflow automation options, and machine types continues to increase within the wide format printing industry, the learning curve gets steeper. The bar is getting higher in terms of expected print quality, and education will become even more important as printers expand their services into additional substrates and supplies.

With today's technologies, businesses of all sizes can now afford to get into the wide format game. Things that might have been impossible for small sign shops just a few years ago are now a reality, and future technological advancements mean that even more opportunities are on the horizon. Wide format market players must understand the requirements in today's ever-expanding market. The digital wide format industry continues to expand, and it is important for PSPs, vendors, dealers, salespeople, and others to evolve with these changes. Workflow is a key component of any process, so industry vendors must also develop an understanding of key bottlenecks, areas of waste, methods of automation, and supply chain management.

A key caveat is that the wide format industry is incredibly broad and diverse, so brand owners and service providers must remember that they cannot be all things to all people. A customer's needs will vary widely based on vertical market, type of application, client needs/expectations, and industry rules/regulations. For example, the wide format needs of a small/independent retail establishment will be dramatically different from the requirements of an international healthcare facility that must comply with industry regulations while also communicating life-or-death information to patients and visitors. Despite these challenges, the wide format market is rich with opportunity. The key is to determine a niche area of focus and then concentrate on those clients whose needs fall within your areas of specialization.

In April 2017, the International Sign Expo and CPP (Collaboration in Packaging Production) Expo will colocate at the Mandalay Bay Resort in Las Vegas. Co-locating these shows at a single venue will help bridge the gap between signage and packaging, and will likely prove invaluable for sign shops that are thinking about expanding their offerings. Event attendees will also have the opportunity to see Esko's shop floor management design in action. Innovations in printing processes continue to fuel the growth in wide format production, making it easier than ever to leverage a variety of inks and substrates, improve customization, and add more value to the process from prepress to delivery.

INFOTRENDS' OPINION

Regardless of their size, type, customer base, or application range, all wide format businesses need to save time, reduce errors, and improve profitability. Today's offerings include a variety of workflowenhancing tools for companies of all sizes, whether it is a single-printer sign shop or an international provider with multiple locations and huge printer fleets. Although reducing waste is of course important, an improved workflow can also enable optimization and increase profits. This underscores the importance of developing an understanding about workflow automation and supply chain management. Most businesses remember to take their equipment into account, but they forget that the workflow process can have a major impact on the bottom line.

Digital printing is transforming the market supply chain by helping to cut costs, shrink cycle time, and minimize errors and defects. Using fixed images as well as variable data, digital technology offers the ability to create versions and respond rapidly to changing design, brand management, security, and regulatory requirements. Digital technology is expected to catch on quickly as businesses seek new and innovative ways to differentiate their offerings. Market demand and the benefits associated with streamlining the supply chain will create growth opportunities that industry players cannot afford to ignore. Now is the time to explore how digital print production can complement cost-cutting initiatives, and how an efficient workflow can positively impact the bottom line!

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Market Opportunities for Digital Printing



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