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# LABELS & LABELING

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JANUARY

2021

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#### **DIVERSIFICATION**

How are label converters diversifying their business?

#### **WORKFORCE WOES**

Recruiting younger workers is only half the battle

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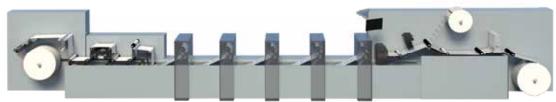


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DM-JETLINER



DM-UNILINER 2D (flat metallization) in brief: DM-UNILINER 3D (raised metallization)





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#### L&L

#### - Meet the team

Labels & Labeling is the leading global information source for the label and package print converting industries with an editorial team and network of correspondents spread throughout the world



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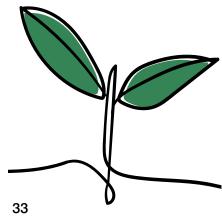
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#### Contents

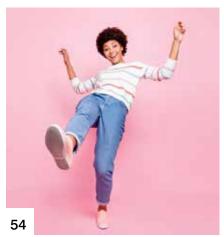












#### Regulars

- 9 Editor's welcome
- 10 News
- 15 New products
- 19 Installations
- 22 Label & packaging showcase
- 25 Mike Fairley column
- 31 Andy Thomas-Emans column
- 33 Continuous improvement
- 36 Branding and design
- 39 M&A
- 41 Young managers: Elizabeth Yerecic
- 42 Q&A: Bernhard Grob
- 112 Label trends

#### **Trends**

- 48 Diversifying from PS labels To what extent are label converters looking to diversify their businesses beyond the self-adhesive label core?
- 54 Workforce woes: hiring and retaining young workers Recruiting younger workers into the label industry is only half the battle
- 60 Beverage labeling A personalized, eco-friendly and smart label might be the ultimate recipe for
- 68 Holy Grail of a circular economy

success in beverge applications

Digital watermarking can fast-track the packaging supply chain to a circulareconomy model

100 Analyzing hybrid printing Mike Fairley analyzes the exciting opportunities brought by hybrid printing technology

#### **Features**

- 70 Lappi eyes further expansion With four plants spread across Spain and Portugal, Grupo Lappí has ambitious plans for further international expansion
- 74 Path to automation Italian converter reaches new heights of productivity with Cerm MIS
- 76 Xaar looks to regain printhead leadership

Xaar launches new technology platform after 30 years at leading edge of inkjet development

79 Fresh soups and new beginnings

OKI's Pro1050 printer helps Belgian social enterprise fight food waste

80 Growth strategies at Fortis Solutions

US converter has been on an acquisition blitz while also growing organically









#### **Technology**

#### 84 Pinnacle Traxim forays into digital

Indian converter chooses Konica Minolta AccurioLabel 230 press to diversify into

87 Chiripal Poly Films expands BOPP film manufacturer opens new plant in southern India

#### 88 Avery Dennison expands in India

Avery Dennison expands in India with 34m USD investment

#### 91 Labelexpo South China launched

The inaugural edition in Shenzhen hosted nearly 9,000 visitors

#### 94 Etirama expands global footprint

The Brazilian press manufacturer has global expansion plans

73 Luminescent colors: a quality control challenge

German converter Oscar Mahl turns to Erhardt+Leimer's SmartScan UV system

#### 83 Five reasons to select synthetic paper

PPG's Fabrizio Mandingorra on the advantages brought by synthetic paper

#### 93 Tengcai benefits from RFID and Industry 4.0 focus

Chinese OEM enterprise seeks to integrate RFID label production using both conventional and digital printing

#### 97 Improve print quality Cheshire Anilox's Sonia Arcos on steps converters can take to improve print quality

#### 104 Flexible packaging constructions

Which flexible packaging constructions can be converted by label printers?





L&L launches subscription service

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Fortis Solutions Group on acquisition strategy (video)

CEO John Wynne discusses strategy in North America



Read L&L issue 6 online (magazine) Previous issue of L&L is now available to read online



S Anand Packaging on market trends

Parshav Jain talks about the need for trade shows

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#### L&L looks back (L&L issue 3, 1988)



P12 Mike Fairley visited Nilpeter's newly opened 10,000sqm (107,600 sqft) production and service center at Slagelse in Denmark. The manufacturer planned to produce Rotolabel presses in response to growing demand for roll-label production technology. Nilpeter invested heavily in new technology and computerization at the new facility.



P26 L&L ventured to Finland and Cheshire, UK, to visit Lohjan Paperi Group with a mission to review release liner technology and examine the latest developments. Thinner, uniform caliper, high specification release papers with advanced emulsion coated silicone surfaces were promising future economic advantages to the label industry.



P32 Label products competing for the annual Fasson Self-Adhesive Awards walked off with the lion's share of the prizes. In 1988, 15 of the 21 awards made to entries vying for honors in its graphic product categories were won by primary, promotional or utility labels. Vinyline of St Helens won the GPB 1,000 Fasson Challenge Trophy.



P48 Mike Fairley visited a new Variable Information Print service bureau, which offered label converters the printing of variable information, multi-language text, graphics, and sequential barcodes, which were becoming increasingly important in label production. Only a few converters could offer such services in-house at the time.

#### Cover story

#### Editor's note

ome things only work in print. This special front cover of L&L is a case in point: our first to feature foiling applied by hot stamping on synthetic material. The latter was supplied by Cosmo Films; the foil by Foilco.

The story began when head designer Adam Evans created the cover graphic – a striking whisky label which we personalized to reference this issue's beverage labeling article.

'We have a superb design team at L&L, and when I saw the proofs for the beverage article I knew that it would make a fantastic front cover, especially if it was foiled,' says production and design manager James Wenman. 'But mindful that we were printing on a synthetic I simply wasn't sure if it could be done. Some designs cry out for special finishes to bring them alive, but high temperatures and synthetics

#### "Some things only work in print"

aren't natural bed fellows.'

Blackmore, L&L's printer based in Dorset, UK, took up the challenge. 'Conventional printing on synthetic stocks can be problematic as the ink doesn't absorb and therefore can take a long time to dry,' says sales manager Peter Thompson. 'But we have a KBA press with UV LED curing, so the ink dries on impact and sits on the surface of the paper perfect for printing on uncoated papers or specialist stocks."

Blackmore had not previously printed on Cosmo's synthetic material. 'We were confident we could print on this stock, but foil blocking onto a synthetic is not something we had done before,' says Thompson. 'The fear was that the foiling process could melt the synthetic stock. But our local foil block company Duraseal ran trials with two

different foils on printed sheets, to check the foil would adhere to the printed surface, not just the surface of the stock."

Kapil Anand, global head, Speciality Labels & Industrial Films at Cosmo Films, says: 'We are delighted to provide our both-side coated synthetic paper for L&L's cover. I am sure the results will be impressive due to the quality of our synthetic paper, which finds a wide range of applications in book covers, tags and labels, retail and packaging, identification and credential documents.

Matt Hornby, sales director at Foilco, says: 'We are delighted to be involved in this decoration project with L&L. It highlights the growing number of publications wishing to increase their visual appeal, and we are now seeing this gradual shift

in the label and packaging sectors. It's great to witness. Foilco offers the widest range of stamping foil variations in the industry, from color range and effects to application specific grades. As Foilco continues to grow its number of international agents, it is a great time to further push our global presence with L&L.'

'As a printed magazine, we have an opportunity to put different materials and finishes directly into the hands of the people who'll be using them on their products,' says Wenman. 'I find it rewarding to think that we may inspire or stimulate new ideas."

James Quirk Group managing editor



#### Avery Dennison acquires Acpo

Deal includes majority of Acpo's assets

Avery Dennison has acquired Ohio-based Acpo for the purchase price of 87.6 million USD, subject to certain post-closing adjustments. Acpo produces pressure-sensitive overlaminate products for the label and flexible packaging markets and has approximately 170 employees.

Avery Dennison has acquired the majority of Acpo's assets, including coating, finishing and distribution operations at its Oak Harbor, Ohio, headquarters, as well as three finishing and distribution sites in Atlanta, Georgia; Oak Creek, Wisconsin; and Vancouver, Washington. Acpo employees will transition to the Avery Dennison label and graphic materials team.

'Our acquisition of Acpo will further strengthen our leadership in core label materials segments,' said Mitch Butier, Avery Dennison's chairman, president and CEO. 'By adding Acpo's well-regarded and complementary overlaminate products, we are increasing our product portfolio and adding even more value for our customers.'

'We are delighted to have Acpo become part of Avery Dennison,' said Missy Larick, chief operating officer of Esperia Holdings, the holding company of Acpo. 'We know that tapping into the know-how of Avery Dennison's materials scientists, with their expertise in adhesives, base labels, and surface chemistry, will dramatically accelerate innovation of Acpo products.' Larick will play a key role during the transition and will stay with Esperia Holdings as chief operating officer.

#### Manroland acquires Thallo

DG press Services and Manroland Goss Group have signed a Letter of Intent for Manroland to acquire the Thallo press series for flexible packaging applications. The LOI was drawn up after Manroland Goss Group purchased the intellectual property rights of the Thallo packaging business. DG press Services launched the Thallo press series in 2014, targeting film and foil printing with hybrid sleeve offset technology. The basis for that development was the successful VSOP press series with more than 90 installations worldwide in more than 60 countries, developed by DG press predecessor Drent Goebel. DG press will play an essential role in collaboration with the manufacturing and project execution of the Thallo presses.



#### Flint Group launches XSYS division

Flint Group Flexographic and Xeikon Prepress merge

Flint Group has launched XSYS, a new division combining Flint Group Flexographic and Xeikon Prepress to strengthen its flexo and letterpress offering with three subdivisions: plates, sleeves, and pre-press equipment. Although the two groups have been working together for some time, this formal alignment is expected to bring more collaboration and innovation to the group and its customers.

'With the integration of Xeikon Prepress with Flint Group Flexographic, we are now implementing an important step of our strategy to become a full solution provider for the flexo pre-press industry,' said Dagmar Schmidt, president of XSYS. 'In forming this new division, we bring together what belongs together: plates, processing equipment, imagers, sleeves and adapters. The name derives from ThermoFlexX, nyloflex, Xpress, and other brands that feature the X, combined with Systems to form the name XSYS.'

The existing products and brands incorporated into XSYS include nyloflex flexo solvent and thermal plates and equipment, nyloprint letterpress plates and equipment, nylosolv, rotec sleeves and adapters, ThermoFlexX TfxX imagers, ThermoFlexX Catena plate processing equipment, and surface screening technologies.

Our division is primarily focusing on the pre-press part of the value chain complemented by sleeves, which gives us excellent access to the printing press room,' added Schmidt. 'We are organized into three subdivisions which will all work closely together: pre-press, plates and sleeves.'

#### inotec expands with acquisitions

inotec has acquired identytag and Winckel to expand and further develop its product offering. The merger of inotec and identytag, a supplier of RFID tags and labels, will see the development of smart supply chain labeling technologies for monitoring and collecting movement data. Winckel is a specialist in RFID-based technologies, including networking and the intelligent use of movement tracking data within supply chains. The acquisition of Winckel will allow inotec to develop digital supply chain management alongside its labeling portfolio. 'The acquisitions will enable our three companies to merge into a specialized developer and producer of intelligent RFID and labeling solutions for supply chains,' commented Dr Ulf Sparka, managing director of inotec Barcode Security.



#### L&L launches subscription service

Unlimited access to Label Academy book and master class content

For the first time, Labels & Labeling is offering unlimited access to a vast library of Label Academy book content and recorded Labelexpo conference sessions and Label Academy master class presentations.

With over 150 articles from 16 Label Academy books (previously unavailable in a digital format) and more than 20 video recordings of master classes and Virtual Label Summit conference sessions, the Label Academy subscription service is your 'one-stop shop' for label and package printing information.

The subscription offers remarkable value. With all the content from Labelexpo and the Label Academy conveniently located in one place, users can potentially save up to 80 percent compared to purchasing these items individually.

Additionally, with more articles and videos being added throughout the year, the value of your subscription will continue to increase.

Whether you are a newcomer to the industry or an expert, your subscription means you are only a click away from the answer to your question.

#### Sale of Gallus to benpac fails

The sale of Gallus by Heidelberg has not been completed after Swiss corporation benpac failed to make the purchase price of EUR 120 million. The five sites and around 430 employees of Gallus will remain with Heidelberg. Heidelberg will continue to handle sales and service for the Gallus portfolio, and its contacts will remain the same. Heidelberg says it will 'now be examining various options for the corporate future of Gallus'. Read more in the next issue of Labels & Labeling.

#### Codimag appoints Vietnam agent

Codimag has appointed Minh Duc Solutions as a new agent in Vietnam. Minh Duc Solutions is one of the leading distributors to the print sector in Vietnam and will promote Codimag's portfolio of printing presses based on Aniflo technology. Benoit Demol, Codimag CEO, said: 'Its knowledge of the market, its experience with other brands, and its close relationship with printers convinced us that MDS is the right partner. For example, they have recently successfully installed a press from Edale, another brand they are working with, by themselves. This is the kind of local support we were searching for.' Le Phuc Tai, managing director of MDS, added: 'We are very happy to collaborate with Codimag. Our market is booming in volume, and customers are now looking for technologies to fulfill demanding end-users requesting fast delivery time, high print quality, and shorter runs. Aniflo technology answers the market trends, and we are very optimistic about having a fruitful collaboration.'

#### News in Brief

#### Arjobex acquires MDV

Arjobex Synthetic Papers has acquired MDV Group, a Germany-based manufacturer and coater of specialty papers. Arjobex, manufacturer of Polyart synthetic paper, acquired 100 percent shares of the MDV Group owned by the Krishna and Reichert families. MDV operates two coating facilities in Germany and one HDPE blown film manufacturing facility in the UK.

#### UPM Raflatac scales up linerless business

UPM Raflatac has invested EUR 13 million in a new linerless coating line in Nowa Wieś, Poland, to increase its direct thermal linerless annual production capacity by 100 million sqm. The new production line is expected to be operational at the end of 2021.

#### ePac to open in Korea

ePac Flexible Packaging has formed ePac Seoul as it plans to open in a second location in the Asia Pacific region in Seoul, South Korea. The company's affiliate, ePac Holdings Asia, will be the managing entity for this and all future expansion in the region. ePac Seoul is a partnership between ePac Holdings, ePac Holdings Asia, and South Korea-based CC Labs. Managing the operation will be Kim Min-Choel, former CEO of CC Labs.

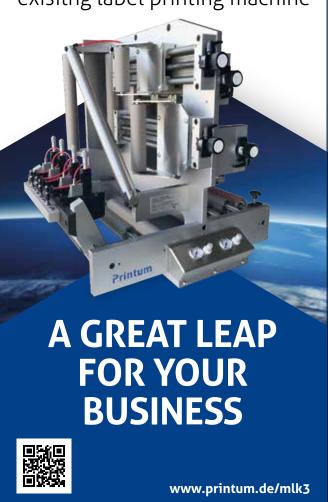
#### GM names Vietnam agent

Grafisk Maskinfabrik has appointed Vietnam-based VPrint as its new agent to further expand its presence in Asia. VPrint is a well-established supplier of offset printing, packaging and labeling machinery. Lykke Trusbak, GM's label segment director, said: 'Our presence in this part of Asia is extremely important to us due to the dynamically developing market.'

#### New Screen Americas site complete

Screen Americas has moved into its new larger facility in Elk Grove Village, Illinois. The new site spans 48,000 sq ft, of which more than 14,000 is dedicated to the Screen Inkjet Innovation Center. The center will also showcase Screen Americas' pre-press workflow solutions and its Truepress digital inkjet series.







#### Bobst opens Barcelona demo center

Two Mouvent label presses on display

Bobst has expanded its demonstration capabilities with a dedicated demo center in Barcelona, Spain, the first outside Switzerland, equipped with two label presses with the Mouvent Cluster Technology.

'Barcelona is a European hub and such a vibrant and exciting place, it seemed the natural choice for our new center,' said Erik van Sloten, head of label sales at Bobst. 'We are on the final stretch and almost good to go. All of the equipment is state-of-the-art, and the onsite team is extremely passionate and knowledgeable.'

The first two machines in the demonstration center are the Mouvent LB701-UV and Mouvent LB702-UV, two 6-color plus white label presses operating at speeds of up to 100 m/min.

The LB701-UV is the smallest label press within the Mouvent range, matching the letterpress format. It features a compact design, print resolution of 1,200  $\times$  1,200 DPI, and production speeds of up to 70m/min. In Barcelona, it is equipped with six colors for extended color gamut printing. The LB702-UV label press, with up to 100m/min printing speeds, is capable of producing 200,000 sqm/month with one operator in a single shift operation, with a print quality of 1,200  $\times$  1,200 DPI.

In the future, the center will also house the Bobst Master DM5, an in-line press with digital automation for on-the-fly non-stop job change, high press uptime, and repeatability regardless of operator skill.

#### Bobst takes control of Mouvent

Bobst Group has acquired the remaining 49.9 percent stake in Mouvent and joined forces with SEI Laser to reinforce its increasing focus on digital printing and finishing portfolio.

Bobst acquired 50.1 percent of Radex in June 2017 to develop Mouvent, a start-up company focusing on digital inkjet printing.

Mouvent's innovative cluster technology has been deployed in the Mouvent LB-701, LB-702, and the Bobst Master DM5 presses. According to the company, despite the Covid-19 pandemic, more than 20 presses have been sold in Europe and the USA in 2020. The company has also teamed up with SEI Laser to develop and globally commercialize digital laser cutting technologies for the labels, flexible packaging, folding carton, and corrugated board industries.



#### Loftware and NiceLabel merge

Merger will allow more investment in cloud-based operations

Loftware, a supplier of enterprise labeling and artwork management systems, and NiceLabel, a label management software developer, have joined forces under the Loftware corporate umbrella. The merger brings together 60 years of combined expertise in solving labeling challenges for companies of all sizes throughout a wide range of industries across the globe.

'Our customers, channel and technology partners and the overall market will benefit from our strategic vision to provide broader and deeper labeling solutions in addition to expanded scale, world-class services, and global support. It also unites the best talent in the industry to drive new levels of innovation,' said Loftware president and CEO, Robert O'Connor, Jr. 'Loftware and NiceLabel have both seen sustained growth and expansion over the past several years, especially in 2020 when labeling solutions have become so critical to supply chain continuity. This move brings together two thriving organizations, providing momentum for significant expansion over the next decade and beyond.'

The combined organization will continue to offer both Loftware and NiceLabel products, providing cloud-based labeling options for direct and channel partner customers worldwide.

'We are delighted to combine with Loftware and look forward to expanding opportunities for our channel partners and end customers by providing new solutions and innovations to help them grow their business,' stated NiceLabel CEO, Chris Walsh.

#### Schur buys Interket's Danish operation

Schur Group and Interket Group have agreed to merge their Danish label activities into one company under Schur Labels' brand and ownership. he Interket Group will divest its operating business and assets within Denmark, while Interket will remain the holding company for the Interket Group. 'The Danish market is a limited part of the Interket Group, and we have for some time evaluated different options to strengthen our position, including the recent investments in a digital print platform. When this opportunity arose, we immediately saw the industrial logic and potential in merging the two companies, creating a new strong contender within the Danish labels market-based in Horsens,' commented Carl Parkander, CEO of Interket Group.'



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#### New Products











#### **11** XL5i G3 coating circulator Tresu

Tresu has launched XL5i G3, a peristaltic coating circulator which precisely regulates and stables the flow for uncontaminated coating with sensitive or special aqueous or UV coatings for all printing applications. Introducing a new range of opportunities in automation, connectivity as well as level and pressure control, the new XL5i G3 coating circulator enables full and automated control of a range of high-quality coating applications with sensitive and special coatings such as opaque white, gold, and silver metallurgy, pearl luster, blister, high-gloss, scented or silky soft touch effects.

#### **№** K600G

#### Domino

Domino has launched K600G. a new blister foil and web digital printing technology for product serialization in pharma applications, developed

in collaboration with pharma industry specialist Gallarus and life science industry expert SeaVision. The new K600G includes a range of options developed for different installation types, including off-line, near-line, top-of-line, sealed-blister-coding for printing directly on formed blister packs, and an in-line version designed to meet the needs of OEMs. The K600G achieves reliable printing across a range of substrates with a native resolution of 600 DPI and greyscale capability. It is based on Domino's piezo drop-on-demand inkjet technology

#### 1 Nova remote service app Omet

Omet has launched Nova, a multi-language, virtual access application for remote service and installations managed directly from its offices in Italy. Nova enables instant translation in 64 languages and allows technicians to work with the customer and guide local staff to solve problems

efficiently. After a converter has registered, Omet can immediately identify its machines. 'Nova is already active globally and represents a revolution for the world of assistance. With the pandemic underway, it becomes key to manage any type of remote technical intervention, from installation to fault repair, without any delay or loss of effectiveness,' commented Omet sales director Marco Calcagni.

#### **™** MEBR+ Evolution Lemorau

Lemorau has launched MEBR+ Evolution, a printing and finishing system developed to produce premium labels with a flexible, modular configuration. The MEBR+ Evolution includes an unwinder equipped with a nip in servo, web guide, splice table with space to include web cleaner and corona treatment, a flexo module in registration, as well as a flat screen-printing module that produces glossy or matte UV varnish, glitter, rough and metallic effects. The MEBR+ Evolution includes hot foil stamping for adding metallic effects and a finishing module with a semi-rotary/rotary die-cutting unit equipped with an anvil roll with adjustable gap and an easy strip G2 waste rewinder, air trim removal, followed by slitting and double rewinding.

#### Endura inkjet paper

#### Spinnaker Coating

Spinnaker Coating has introduced Endura inkjet paper to expand its BS5609-certified materials portfolio. 'We recently partnered with Neenah Performance Materials to introduce Endura inkjet durable paper as part of this line,' said Joel Ulrich, roll product marketing manager. 'This product is a saturated and coated paper facestock that offers the high durability and chemical resistance typical of a film facestock, but at a more economical price point." The new facestock is BS5609

#### New Products











Part 2 and Part 3 approved, and, according to Spinnaker, provides exceptional printability via flexo and water-based inkjet platforms.

#### **6** Non-stop winders

#### A B Graphic

A B Graphic has launched a non-stop unwinder (NSU) and non-stop rewinder (NSR) based on existing designs by its partner Kocher+Beck. The new winder technologies mark ABG's entry into the splicing arena. The new equipment will be manufactured at ABG's Spanish facility. According to the company, both systems will be of interest to customers printing medium to long runs, looking to increase productivity and improve product quality, as well as control and reduce material waste. Both winder systems have a range of applications and can be integrated and rewind the material and with existing production lines, including presses and finishing equipment. ABG's standard NSU system ensures the non-stop

feed of web-type materials. The NSR system provides continuous rewinding of the self-adhesive matrix.

#### @ eRR40 dual inspection rewinder

#### Enprom

Enprom has released eRR40, a dual inspection rewinder for shrink sleeves and flexible packaging. The eRR40 offers two working modes: for shrink sleeves, by verifying the correct seaming of the sleeve tube, using the air balloon validation system with electronic detection; and for the flexible packaging market, through the inspection, control and doctor of reels up to 400mm web width, allowing for repair printing and slitting defects. As a bidirectional inspection system, the eRR40 is designed to unwind detect defects. To carry out this process, the machine consists of a unique, compact unit with an integrated unwinder and rewinder. The eRR40 can also be equipped with a, splicing detector, width detector, UV lamp, display screen, stroboscope lamp, pressure rollers on a rewinder, controlled shifting system, or a 100 percent printing inspection system.

#### © Evolution Series E3 Mark Andy

The second iteration of Mark Andy's Evolution Series flexo press, launched at Labelexpo Europe 2019, has been developed 'to fill a gap in the market for a servo-powered machine that prioritizes ease of use and reduces operating costs,' says the company. Evolution Series E3 is available in 13in and 17in (330mm and 430mm) web widths with production speeds of up to 500ft/min (150m/min). Evolution Series E5, meanwhile, has the same technical specifications and is available in 13 and 17in (330 and 430mm) web widths with production speeds of up to 750ft/ min (230m/min).

#### <sup>®</sup> Mask-making machine

#### Lemu Group

Converting equipment manufacturer Lemu Group has engineered a machine to produce facemasks for use during the Covid-19 pandemic, providing an opportunity for converters to expand into new areas of growth. The equipment was developed by Teyman, a Lemu Group company in Valencia, Spain. 'Given the shortage of masks in Europe, Lemu Group decided to do what it does best – build robust machines with stable production.' said Naiara Fernandez, sales leader of Lemu Group's non-woven business unit. 'We wanted to help curb this disease, which spreads so fast. In record time, we were able to develop a surgical production line from scratch.'



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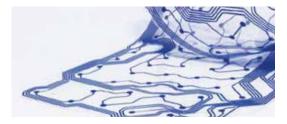
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Printed / Flexible Electronics



Opaque White



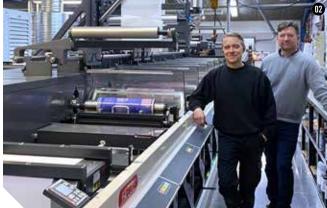
Bio Sensors



■ Tactile and Varnish

#### Installations









1 Two HP Indigo 6900 presses Zolemba, The Netherlands Dutch converter Zolemba aims to become 'the most innovative e-commerce printing company in Europe' by installing two HP Indigo 6900 digital presses. Zolemba's two HP Indigo 6900 digital presses enable customization even in small volumes and contribute to increased production speed. Their versatility makes them suitable for a wide range of applications, such as in-mold and wraparound labels, and shrink sleeves. Marthiin Kieneker, CEO of Zolemba, said: 'Together with HP, we offer customers a unique range of convenient online ordering, high-quality customized labels, and high-speed delivery. The addition of the digital press to our machinery makes it possible to expand our market even further. Our enthusiastic team of professionals can't wait to see the first projects come out of the machine."

Nilpeter FA-22

Etiflex, Denmark

Danish label converter Etiflex has acquired a Nilpeter FA-22 press to increase efficiency and add new filmic and carton products to its portfolio. The company also runs Nilpeter FB-4200 and FA-4 presses. It produces labels and flexible packaging for customers such as Carlsberg, Velux and Tican. 'We've worked with Nilpeter since 2005, and to be frank, there's no denying its impact; having a stable, high-quality press is probably the most import part of our business,' said Brian Sandgaard, technical director and partner at Etiflex. 'The pandemic has affected everyone, us included, but Nilpeter actually managed to install the FA-22 at the start of December, at the height of the second wave, by adhering to all restrictions and guidelines. The press has run perfectly since day one, with self-adhesive labels, mono films and cartons.

**13** *GM finishing equipment* AA Labels, UK

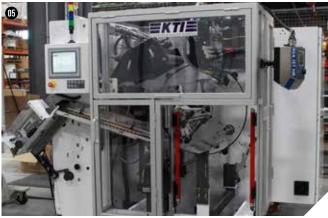
AA Labels has installed GM's 330FB and DC350 converting lines and a PNT160S semi-auto core cutting machine, to expand its services with embossing, hot foil, screen printing and spot UV varnish finishing options. Sohail Sethi, MD of AA Labels, said: 'We have identified growth in demand for label embellishments, but our main aim is to introduce new audiences to the creative possibilities of labeling. Brands need to convey the prestige of their products through the packaging. These techniques help us add a luxurious and eye-catching finishing touch. Uffe Nielsen, CEO at GM, added: 'The 330FB Premium wine label line offers state-of-the-art performance and quality for hot foil and screeng embellishments. This unit will add refined details of gold, silver, or even holograms to labels. With the perfect register, 50 tons of pressure, and high

production speed in foiling, the 330FB will make AA Labels competitive in the high-end label market.'

Guardian PQV inspection system

Shreedhar Labels, India Ahmedabad-based Shreedhar Labels has installed India's first Guardian PQV 100 percent print inspection technology from Baldwin Vision Systems. Bhavya Shah, director of Shreedhar Labels, noted that his company's processes have been greatly improved since the installation: 'We are able to guarantee our performance and our customers are very happy with the print quality. We now have zero rejection of printed substrate from our customers. Our operators are using the system for every job, and say it is very user-friendly. The tiniest font size variations are detected, and no defective product is sent to our customers.'

#### Installations









#### **®** KTI MTR turret rewinder

Abbott Label, USA Abbott Label has installed an MTR series turret rewinder from KTI at its facility in Santa Fe Springs, California. The converter plans to run thermal transfer, direct thermal and semi-gloss labels on the new system. It was looking for a way to run and finish high volume roll labels while avoiding a secondary step of rewinding. The MTR has increased production speeds, leaving more time for the operator to focus on machine efficiency and package finished rolls. The automatic tail gluer closes rolls leaving them ready-topackage right off of the machine. With the MTR's small footprint, it can be seamlessly integrated into most production lines, according to KTI. Hayden Wier, marketing manager at Abbott Label, said: 'The research we have done has told us that KTI's MTR Series is a reliable turret rewinder and is supported well, helping make the decision easy for us.'

#### **4** ABG Digicon Series 3 Labelnet, UK

Labelnet has installed a Digicon Series 3 to increase its offering of embellished labels. Working with trade label suppliers and food and drink manufacturers across the UK, the investment will expand the label converter's capabilities. Labelnet can now offer a broader range of finishes to labels and packaging, including screen printing, hot foiling, embossing, and decorative varnishes. 'We have been looking for another opportunity to invest in something new and exciting,' said Neil Southgate, Labelnet founder. 'When I came across the Digicon Series 3 at Labelexpo Europe, I knew it was exactly what we were looking for.'

#### Lemorau ICR3

Cankor Etiket, Turkey Cankor Etiket has acquired a Lemorau ICR3 inspection slitter rewinder to increase its productivity and production

capacity. 'We are in this industry for almost 30 years, and it is our first Lemorau machine. It has significantly improved our productivity levels. We are delighted with this investment,' said Korhan Kalkan, general manager at Cankor Etiket. 'The machine is very useful and easy to operate. We started using it just two days after the delivery, and Lemorau's service department was extremely helpful."

#### Wanjie WJPS 350

Purgina, Slovakia Purgina has installed a Wanjie WJPS 350 semi-rotary offset press from Wanjie Europe. Based in Bratislava, the family-owned converter is a supplier of self-adhesive labels for the wine and spirits industry in central Europe. According to Purgina, the press can effectively react to both short and long runs for FMCG retail products and high-end labels for boutique wineries.

#### **1** Xeikon CX3 press

InterPrint, Spain Spain-based label converter InterPrint has added a Xeikon CX3 digital press with Cheetah technology to its production plant in Navatejera. 'We chose this press for its dry toner technology, which enables us to work with low levels of stock and boost our productivity as pre-treatment of substrates is not needed," said Tomás Iglesias, CEO of InterPrint. 'This enables us to use different substrates of varying thickness, including heat-sensitive substrates, to produce transparent and white labels with high levels of opacity. It must also be pointed out that the inks used for dry toner are safe for use with food since some projects require this compliance and offer high-quality printing, comparable to offset.'



For more installations, go to www.labelsandlabeling. com/news/installations

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<sup>®</sup> Çiftsan Label and Packaging Company, Turkey Doxa Life Men Shampoo

**Innovation Group** 

<sup>04</sup> Kimoha, UAE **Examination Label** 

**Digital Printing Group** 

<sup>05</sup> Etiketten Carini, Austria Amstutz Apfel Edelbrand



0







#### **AWA Sleeve Label Awards 2020**

Heat-shrink TD Sleeve winner and Best in Show

<sup>66</sup> McDowell Label, USA C4 Dynasty energy supplement

#### Environmental **Contribution Award**

<sup>©</sup> Sleever International, USA San Pellegrino Essenza

#### **Certificates of Merit:** Heat-shrink TD Sleeve category

<sup>®</sup> Masterpress, Poland Stock Prestige Vodka

9 Fast Track Packaging, CanadaImpériale Choco Noisette stout



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<sup>220</sup>





# The Mike Fairley column Is the label industry ready for a carbon neutral world?

When the pandemic passes, focus on sustainability will only increase

020 was a defining year for the world, with the Covid pandemic having a major impact on governments, populations, manufacturing and retail. While much of the label industry has fared better than some manufacturing sectors, it has nevertheless brought about a fair amount of upheaval, rescheduling, sourcing and probably rethinking on the way the industry operates.

# "The label industry is surely one of the more resourceful industries when it comes to adapting to, and pioneering, change"

With Covid vaccines now being rolled out in many countries, and stringent lockdowns still being implemented, there is hope that things will start to improve and stabilize later this year – perhaps as early as the summer. Governments worldwide will then start to revert to other national and international issues that they believe need attention and have been somewhat on the sidelines for the past year.

Issues such as climate change and the environment, for example. It has been noticeable that with considerably less air travel, and fewer miles driven by diesel and petrol vehicles, that carbon emissions have been reducing in much of the world – initially in the first lockdown by 17 percent, but now nearer five percent when compared with the year before – and that air quality has started to become cleaner and less polluted.

This change and the potential to reduce emissions even further has been noted by the leading climate change organizations, associations and by governments, all of which are already starting to increase pressure for clean air progress to be continued and even enhanced.

November this year sees last year's postponed 26th climate change conference (COP26), a global United Nations summit event, take place in Glasgow. The stated objective of COP26 is 'to build a truly Global Coalition for Carbon Neutrality by the middle of this century'. The summit, according to UK Prime Minister, Boris Johnson, will be part of a 'defining year of climate action'.

Further enhancing moves for action the new American President, Joe Biden, in one of his first actions, committed the USA to

rejoining the Paris Climate Accord Agreement, a legally binding international treaty on climate change. It was adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016. The goal of this agreement was to limit global warming and achieve a climate neutral world by mid-century. Some countries are already aiming, or acting, to bring this date forward.

#### Label industry impact

So how might all of this impact the label industry? The use of fossil fuels to power factories, buildings and transportation that all release substances, such as carbon dioxide, into the atmosphere — called the greenhouse effect — and warm up the Earth, will undoubtedly be further targeted. The aim being to decarbonize the energy sector. Continued moves to speed up the use of electric vehicles and the need to provide charging facilities at places of work, as well as possible alternative ways of powering and heating homes, buildings and even label plants using solar, wind and heat pump energy solutions, can be expected in the not-too-distant future.

Further actions and legislation against waste and the way it is disposed of, often also adding to harmful global emissions, can be expected as a result of the COP26 summit, with world leaders again endorsing the need to make climate change a priority. For change to be effective, much of it will need to be led by governments, trade bodies and industries. Big brands and businesses are increasingly supporting and adopting the ever-growing climate change goals, all eager to communicate their commitment to sustainability in response to consumer demands to reduce their carbon footprint.

Fortunately for the label industry, the leading label associations around the world have been active for some time in looking at waste, sustainability, recycling, environmental issues and relevant legislation, and do much to inform, support and encourage their members in climate change and environmental developments.

Finat, for example, have created a portal for the label industry on sustainability, recycling, and legislation that provides an overview of all relevant information included in their bi-weekly Finat e-newsletters, as well as other relevant information on Finat initiatives and projects, including recycling, life-cycle assessment and food safety.

The Finat Sustainability, Recycling and Regulatory Affairs Committees actively work to inform members, initiate new projects and to represent the common interest of members towards

#### "Let's make sure the world of labels is at the forefront of this new sustainable future"

decision-makers at a European level in the areas of legislation, recycling and sustainability.

On the initiative of Finat, the two leading trade associations for the label community, TLMI and Finat, additionally joined forces in a project to produce a harmonized Life-Cycle Analysis (LCA) Guidance Document and sector approach.

A further area of activity by Finat is on food safety, a topic that is under everincreasing scrutiny, with a number of the national label associations having produced in-depth guidance for their members.

Similarly, TLMI provides resources for its members, including an environmental management system designed specifically for the label industry, together with committees where collaboration on environmental topics can enable understanding.

TLMI also collaborates with like-minded associations in creating a holistic approach to resource minimization and recycling solutions, and actively participates with other organizations such as the Association

of Plastic Recyclers (APR) and the Sustainable Packaging Coalition.

TLMI and the Flexographic Technical Association (FTA) also support Sustainable Green Printer (SPG) certification from third-party organization, the Sustainable Green Printing Partnership. Certification elevates a printer into an elite group of top sustainable printers that are committed to exceeding sustainability targets by reducing waste, conserving energy, sourcing sustainable materials, creating a safe workplace, continuous improvement, and lowering their carbon footprint.

Worldwide, there are increasing numbers of global corporations, retailers, NGOs, universities, packaging and label converters, raw material and processed material suppliers that are to some degree joining forces to leverage their collective expertise to overcome sustainability challenges.

There are also a number of generic environmental management systems (EMS) available on the market today. These systems and databases integrate procedures and processes for training of personnel



November this year sees the 26th climate change conference (COP26), a global United Nations

summit event, take place in Glasgow

in environmental management, and the monitoring, summarizing, and reporting of specialized environmental performance information to internal and external stakeholders of a manufacturing operation.

Looking at some of the more recent specific label industry initiatives, Avery Dennison has significantly improved scores awarded by the Carbon Disclosure Project (CDP) by publishing a policy on climate that acknowledges the imminent threat posed by climate change and the company's strategy to move toward a lower carbon future, aligned with the Paris agreement and the recommendations of climate scientists.

The company ended 2020 with continued progress against their 2025 sustainability goals and re-committing to its role as one

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of the sustainability leaders within the global value chain.

UPM Raflatac is also strongly committed to sustainability and is working towards labeling a smarter future beyond fossil fuels, with a focus on reducing the use of raw materials and using recycled and renewable materials in its products.

In December last year, MCC Label announced that it had joined companies from around the world in the creation of a new consortium, CELAB: Toward a Circular Economy for Labels. CELAB is an initiative founded by companies in the self-adhesive label industry to create greater circularity for its products by enhancing and promoting recycling solutions around the world.

In forming CELAB, MCC Label joined other leading companies in the self-adhesive label industry to facilitate this collaboration at a global level, foster regional initiatives and find and encourage the universal adoption of industry best practices.

With increased recycling capability gradually emerging from suppliers, producers, waste management, chemical recyclers and others, there is undoubtedly a tremendous opportunity to facilitate

collaboration with partners up and down the label industry's value chain.

#### Sustainability initiatives

Look through the pages of each issue of Labels & Labeling – or the magazine's online archives, together with the vast library of Label Academy book content and master class presentations now available on subscription - and there will be numerous examples of recycling, carbon solutions, sustainability, waste management, energy reduction and climate change initiatives that are available for study.

The label industry is surely one of the more resourceful industries when it comes to adapting to, and pioneering, change. Yet more needs to be done to meet further environmental and climate change policies that will undoubtedly come over the next one, two, three or more years.

In particular, it should be considered that buildings account for around 40 percent of the world's energy use and a third of carbon emissions, and can therefore become one of the most cost-effective carbon reduction opportunities. We can surely expected governments to focus more on this area after COP26. What more can the label industry do?

Despite the problems of the Covid pandemic, there are now a considerable number of people worldwide - particularly the younger generations - that consider climate change and carbon reduction to be the most important of the challenges that the world is facing today. Their voices are increasingly being heard.

Climate change action is certain to be significantly increased to achieve the goals of the original Paris Agreement and actions that come out of COP26 in November this year. The years since the COP21 Agreement came into force have already sparked a range of low-carbon solutions and new markets. More and more countries, regions, cities and companies are establishing carbon neutrality targets.

The label industry needs to be ready for what is still to come. It is going in the right directions, but there are undoubtedly challenges still ahead. Let's make sure the world of labels is at the forefront of this new sustainable, carbon reduction and carbon neutral future.



For more Mike Fairley columns, go to www.labelsandlabeling.com/ contributors/michael-fairley



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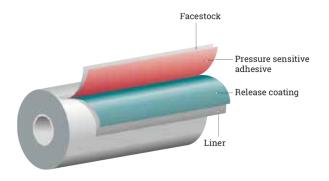


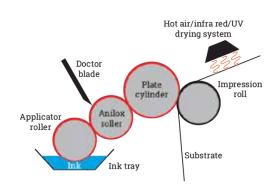
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### LABEL ACADEMY

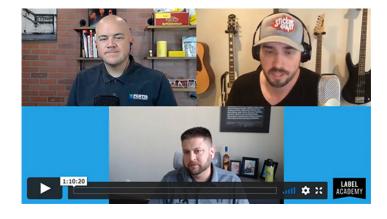
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#### The Andy Thomas-Emans column Green talk turns to action

Recent developments are giving real substance to a future sustainability roadmap

he debate on sustainability has moved on. After a long time spent deciding what sustainability might mean for the label industry, we have seen a recent slew of practical announcements, which is starting to give some real substance to a future sustainability roadmap. These developments are given added urgency by a tightening legislative environment, in particular the EU's Circular Economy directive.

Firstly, the European branch of the global CELAB initiative — tasked with achieving a circular economy for labels — has added more heavyweight material suppliers to its membership, with Lintec Europe now coming on board. More than 20 leading European companies have now committed to the group representing the entire label value chain, including raw material producers, labelstock producers and label converters. The consortium aims to develop a sustainable and circular business model for over 75 percent of used liner and matrix materials in Europe by 2025.

The consortium's goals are practical. It will develop what it calls 'geographical heat maps' of the material usage to identify where materials become waste, and in what quantities. It will identify and support the development of sustainable end markets for repurposed and recycled liner and matrix materials.

CELAB-Europe, coordinated by Finat, will also connect with the European transportation and recycling sector to develop and optimize collection systems for liner and matrix and then monitor and advocate the development of regulations and guidelines that support the development of a sustainable business model for recycling in Europe.

CELAB currently has branches in North America and Europe, but plans are in motion to create branches in South America and Asia Pacific, accommodating differences in recycling capabilities and systems while promoting consistency in messaging and process.

Avery Dennison is meanwhile undertaking its own initiative aimed at the intractable problem of matrix waste. Last year Avery Dennison Label and Packaging Materials launched a scalable matrix recycling program with RoadRunner Recycling to help label converters achieve zero waste-to-landfill.

The pilot program focuses on the economics and logistics associated with collecting matrix waste, while identifying recycling opportunities to enable efficient future matrix circularity. The pilot is available in the Maryland, Chicago, New Jersey and southern Pennsylvania markets.

RoadRunner Recycling specializes in machine learning algorithms that analyze waste volumes to increase recycling rates. The pilot will grow the knowledge base that feeds the algorithms as more material is recycled. Additionally, the program will explore alternatives to waste-to-energy for recycled matrix waste.

As well as these vital initiatives to map recycling resources, there are new developments in sustainable label and packaging materials.

While shrink sleeve labels remain the fastest growing label technology, they do face significant sustainability challenges – namely that the molecular weight of a PET sleeve is the same as a PET container, meaning the printed sleeves cannot be separated

#### "CELAB aims to develop a sustainable and circular business model for over 75 percent of used liner and matrix materials in Europe by 2025"

from the 'clean' PET in a standard flotation tank.

Now CCL Industries has announced a EUR 23 million (USD 26.9 million) investment at its Innovia Films extrusion site in Plock, Poland, to support the production of EcoFloat shrink sleeve film, which the company claims is set to tackle this problem.

A new six-meter multi-layer co-extrusion line will be installed to produce the EcoFloat shrink sleeve material. CCL says the hybrid polyolefin film facilitates easy separation of labels from PET bottles and other types of plastic containers in the recycling process. The new line is expected to come online in early 2022.

Not surprisingly, Guenther Birkner, president of Innovia and food and beverage business at CCL, sees this as a real gamechanger. 'We see this as the sustainable decoration technology of the future for a whole range of packaging in the beverage, dairy, home care and other industries,' he says. 'As a floatable, low density polyolefin film, EcoFloat fulfills the requirements for sleeves as defined in packaging design guidelines.'

Another circular economy initiative, PrintCYC, claims to have developed a cost-effective technology to fully recycle printed plastic films back into high-quality recyclates comparable with virgin materials – without using de-inking technology.

Founded in March 2019, the acronym PrintCYC stands for printed polypropylene (PP) and polyethylene (PE) films for mechanical recycling.

#### Recognition

We should also give full recognition to individual converters whose sustainability efforts are now being rewarded. One such converter is Outlook Group, which has just been awarded the 2020 Wisconsin Recycling Excellence Award by the Wisconsin Department of Natural Resources (DNR).

Outlook's citation is based on the fact the company now diverts an impressive 95+ percent of manufacturing waste from landfill, either by recycling fiber and other materials or by sending laminated films, pressure-sensitive label material, matrix waste and release liner to its Waste-to-Energy (WTE) partners.

Outlook Group president Kevin Hayes stresses that the policy covers all aspects of the company's operations, including offering customers PCR content and biodegradable material options as they become available.



For more Andy Thomas-Emans columns, go to www.labelsandlabeling.com/contributors/andy-thomas



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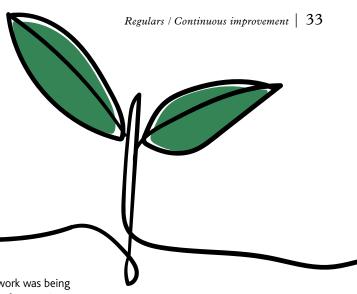
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# Committing to improvement

In the first of a new regular series of columns, Paul Brauss outlines how to create a business culture of continuous improvement



hile preparing for a speaking engagement at the Printing Industries of America Continuous Improvement conference, I was approached by several leaders on the topic of energizing a continuous improvement initiative inside their companies. I believe the information we discussed is now more pertinent than ever in the fabulous industry of label and package printing.

"The employees of today are looking for leaders to share much more about the business, including the strategy and the barriers to achieving it"

Most label printers reported real growth in their segments in 2020 while dealing with the continuing problems of regulations, Covid protocols and resource planning, including people management and new technology and equipment investigation. Several improvement initiatives were unfortunately placed on the back burner or simply abandoned, as the task seemed daunting at a time when critical resources were stretched to their maximum.

It is precisely at this time when traditional thought processes have to be challenged, and continuous improvement be structured as a tool to enhance business management as opposed to a 'project' that adds burden to the process. When processes are stretched to their breaking point is exactly the time to implement a fundamental management shift to the approach of improvement. Each of the business leaders confided in me that their teams were having serious problems completing improvement projects and gaining the advancements higher business levels can lead to. Specifically, margins were

not improving and the work was being completed at extra costs for overtime, expedites, and often quality issues.

These leaders were feeling quite overwhelmed and a little guilty. They felt like they had hit a wall on the improvement front and were stuck wondering what steps to take to get to the next level of performance. I listened as they talked of one problem after another. Several had not kept up with equipment modernization plans and those that had purchased digital equipment early were second-guessing their vendor of choice. The common theme was the increase in demand had impacted 'on-time' performance as customers demanded shorter and shorter lead times. Their ability to produce the short runs on newer materials was exacerbated by old equipment not suited for their ever-changing production model.

One common theme of the discussion was that the leaders found their companies' predicaments made it more difficult to manage and harness the improvements that were expected. Few were finding time to enjoy the success of the business levels. Another common theme was they all saw so much more potential in the market despite the competitive forces, but couldn't continue the personal pace of activity and were looking for answers to employee engagement, responsibility-sharing and risk mitigation.

#### **Focus**

Every one of the leaders recognized they had great people in their organization, but getting the right focus was going to require a management commitment they could support. I explained to the group they were more fortunate than they knew. The workforce of today is looking for more engagement, understanding and visualization that will lead to their ideas becoming implemented and provide a sense of community in the organization. The employees of today are looking for leaders to share much more about the business, including the strategy and the barriers to achieving it. They want to understand the meaning of success and they want

#### Dare to improve your legacy

Paul Brauss' recently published book, 'Dare to improve your legacy', available on Amazon, highlights a label and package printer's journey with continuous improvement as a methodology for educating the business' next generation of leaders. See https://amzn.to/2NFzXkB.

customer interaction. The question for leadership is, 'Have you developed your people and instilled trust so they understand what the problems are, what the strategy is, and that they are equipped to develop action plans on their own to advance the strategy?'

As with most organizations, they admitted to selling their people short and that they had to find a better way to utilize their teams. They did not deny they had to be willing to change the thought process and engage employees from every level of the organization. We all recognize that improvement needed in our organizations requires a cultural shift. Most of the effort is finessing the business model with a substantive commitment to using talent that is probably dormant in action today. The best way to find the areas of opportunity may include your leadership team to work side by side with an outside catalyst who shows up with you and your team daily until they internalize the new routines. There are seven keys to be focused on. I'll touch on them briefly here and then expand on each topic in future editions as part of our series on continuous improvement.

Step 1: Define and communicate your strategy. Many business leaders believe their employees have a basic understanding of their company strategy. I've learned there is often a gap in intimate knowledge that could change the course of action in a company. For example, can your employees tell you what your customers value about your relationship above all else? Can they

Pre Order Process

**Development Process** 

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articulate key company goals and the key business process focus? There are some great strategic tools available to businesses today but it starts with customer intimacy.

Step 2: Align your leadership team to the business processes. A company focused on business process doesn't overthink who works for who. The driving concept is a focus of leadership on process performance responsibility and focuses on process quality. Having a focus on business processes keeps a lot of little problems from turning into big problems. A macro look of processes typically relates to a simple set of three boxes and the handoff of high-quality information from one process box to the other was the responsibility of the process leaders.

Step 3: You must have aligned metrics. There is no shortage of measurements in any of the businesses I have visited. Are they the right metrics and are they encouraging the behavior you want from your people and – even more important – do they line up with your strategy? Earlier I said most strategies are not an intimate part of knowledge in the organization. Hence, metrics may not communicate focus.

**Step 4: Foster involvement and accountability.** Many leaders think this is their primary job. This is partially correct, but getting decision-making and action to lower levels of the organization is paramount. Companies must move from a top-down approach to an approach where people are telling leadership what is going on. The organization needs the president as a supporting resource

supporting their activity not driving every decision.

Step 5: Use kaizen for rapid improvement. Rapid projects of improvement need clear charters that have a defined start and stop for an immediate result. Many companies start here and then often wane after some time because of a lack of commitment to the lean management process.

Step 6: Be visual. A production plant is one of the single best marketing tools a company has that demonstrates its capability. It must be clean, orderly, and have visual, current and understandable metrics. More importantly, leaders being seen on the floor – the Japanese lean manufacturing term 'Gemba' (go and see) – is a huge part of transforming a company.

"Having a focus on business processes keeps a lot of little problems from turning into big problems"







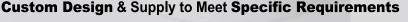












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Step 7: Starts control. Many business leaders have no problem starting projects but then they dilute efforts by starting more projects before they finish the first. This is called 'starts control issues'. There is a math equation to support this statement.

### DCT = AIPs / OUTs Dynamic cycle time = actions in process/completions or outs

Don't let this equation discourage you because most leaders hate math. The concept is simple. Reduce the numerator and concentrate improvement activities on the denominator. The concept is not new, but many leaders lose sight of the discipline process to manage time. It starts with a statement of exactly what your project scope is so that your team understands the limits of their focus. I call this the charter. From a high level, the executives manage how many of these projects get started and assign a heavier concentration of resources with a limited time to completion. (If you understand kaizen then you apply this all around the company.) Most leaders will quickly recognize they have started too many projects without crisp definitions of focus and completion. My counsel is to backlog all but a few of these projects and only activate a new one when one of the previous projects is completed, and make sure there is a firm charter defining the focus.

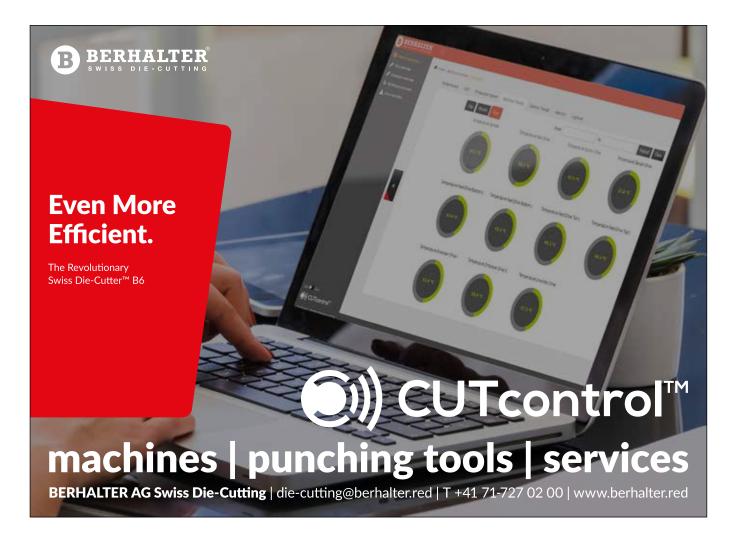
### Willing to change

The leadership has to decide if they are willing to change their behavior and commit to a process that engages people in the organization. To achieve a culture of excellence, leadership must "Most leaders will quickly recognize they have started too many projects without crisp definitions of focus and completion. My counsel is to backlog all but a few and only activate a new one when a previous projects is completed"

be willing to invest time in people to get them fully engaged so they are extensions of the desired company culture. Help them achieve confidence in themselves so they step forward. The seven steps I outlined will make any company better: just months after committing to the transformation, each company that has engaged this approach has reported substantial sustained improvement. The focus will drive improvement and bring higher value to customers and employees, and provide personal gratification to the organization.

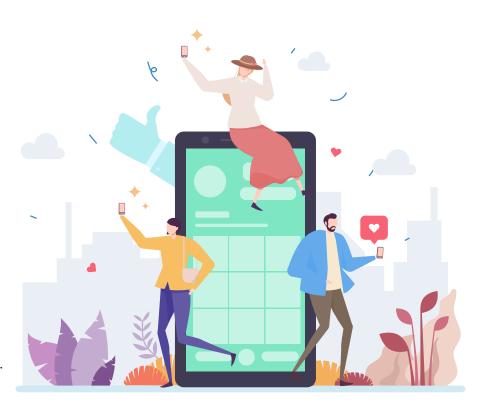


Paul Brauss is a former CEO of Mark Andy and a past board member of TLMI. As a consultant and executive coach, he continues to help companies with their organizational development. Braussconsulting.com



# **Branding** and Design: Remote engagement

In a year of stay-at-home, how can brands stay top-of-mind, asks Vicki Strull



hen we look back at 2020, we will remember many things. The boundless baking of banana bread. The endless days of Zoominars. And the many companies that pivoted quickly to support their teams, their customers and their communities.

For me and the corner of the business world that I inhabit – print, packaging and design strategy – I will remember 2020 as the year that e-commerce became more than an 'also-ran' and overtook the in-store experience as the preferred way of shopping.

Here's what that looked like: online sales increased 44 percent compared to 2019, grabbing 21 percent of total retail sales. That kind of growth wasn't projected until 2022. In-store traffic was down everywhere; Black Friday alone dropped 52 percent. And while a lot of that was due to retail restrictions, it's actually a change in people's buying habits that's predicted to continue – which is why brands are rethinking nearly everything they do to stay in front of a shopper who is no longer standing in front of a store shelf. Here are a few of the strategies that hit the mark and why:

1. Social engagement. The biggest top-of-mind takeaway for brands is: go where the people are. With consumers spending more time on their digital devices, brands are boosting their online engagement to increase awareness. During the second quarter of 2020, e-commerce brands saw a 60 percent increase in acquisition from online channels (62 percent of that from mobile devices).

Importantly, what we've learned in 2020 is that social engagement done right is not about pushing product (well, not only about pushing product). It's about understanding what your customers are going through; being there for them in original ways; and building trusted relationships that create customer loyalty and then business. In many ways, social engagement and social commerce has replaced wandering around in stores and impulse buying. More on that in a minute.

Scroll through social media and you'll see brands sharing stories of empathy, humanitarian support, integrity and other values. These are key components of cultivating social engagement and building trust. The idea is, while your followers are following, liking and commenting on your content on, say, Instagram, they're deepening their connection. When they're ready to shop, they'll remember that connection and buy your product. And while this kind of social presence was important for brands before Covid, today, it's imperative. That's because the opportunity for consumers to view your products has narrowed to primarily one channel: online.

"I will remember 2020 as the year that e-commerce became more than an 'also-ran' and overtook the in-store experience as the preferred way of shopping"

Think back to how you used to shop. People aren't wandering supermarket aisles; they're not window shopping in malls or lingering in stores. For lots of people, pre-Covid shopping was a time of discovery, stimulation, people- or product-watching. I myself have been accused of having 'linger-itis'. So where are people lingering now? On their devices. Scrolling, stopping and shopping has replaced wandering, lingering and impulse buying. Social media is the place where brands are inventing new ways to be with their customers, not merely in front of them.

2. Giveaways, limited runs and cause marketing. Remember at the beginning of the pandemic when hobbies were huge and doing puzzles became a thing? (Apologies to those of you for whom puzzles has always been a thing.) In May 2020, Heinz Ketchup catered to the craze and released a limited edition puzzle. With a nod to its iconic '57' label design, the puzzle contains 570 pieces, all in the color 'Heinz red'. Dripping with slogan sarcasm, Heinz touted its puzzle as 'the slowest puzzle on earth'.

Fans couldn't buy the puzzle; instead, Heinz gave away 57 of them in 17 countries as part of its online contest. To enter, Heinz asked its followers to share on social media 'who they'd most like to complete the puzzle with'. The campaign was a hit: more than 21,000 comments and 13,000 engagements. Heinz wasn't selling ketchup; it was empathizing with people who were bored or wanted to connect. It invented something to go where its customers were: home. It built relationships and engagement. This was savvy, agile marketing without selling a thing.

Hallmark also created campaigns to help people feel less isolated during the pandemic. In its first campaign, the company offered to give away one million cards for people to send to a friend or loved one. In just two days, the response was so overwhelming that Hallmark increased its giveaway to two million cards. Like Heinz, Hallmark wasn't selling anything. It recognized that we couldn't be

with people, that it was difficult to even think about buying a card when we were trying to buy toilet paper. So it made it easy to order a free card online and connect to loved ones. This was completely on brand for Hallmark: cards are a surrogate with Hallmark as the carrier. Hallmark was built on understanding how much this simple gesture can help people feel less lonely. The company continues its consumer engagement by asking followers to share their stories using #CardsDoMore. So far, Hallmark has given away five million cards through its Covid campaigns.

It's not just the big brands socially engaging. TouchNote ran a similar campaign. TouchNote is an app for people to create custom cards and photo products from their phones. (TouchNote has 26,000 Instagram followers compared to Hallmark's nearly 900,000). Touchnote gave away more than 23,000 free cards in 2020 to help its followers stay connected with family and friends.

What is the common denominator among these and thousands of other brands' social engagement content? There's no sales push. Cards, campaigns, contests, causes – all are proving to be powerful ways to increase brand awareness and stay top of mind by showing consumers that you value their relationship beyond sales.

3. Partnerships. Partnering is another way that brands are staying top of mind, leveraging trends that emerged or surged during the pandemic.

Hershey's built a pandemic partnership by joining flavors with Yuengling, for a limited-edition Chocolate Porter. Previously, the porter was available only on draft. With bars and restaurants shut down due to Covid, the two brands launched a bottled version that fans could enjoy at home. The new brew offered a different way for people to think about Hershey's, while the partnership gave Hershey's a way to expand its audience; to be in front of people in a different category – beyond the candy aisle.

Another reality of stay-at-home orders is that more people have been cooking at home. For some, that meant 2020 was the first year they cooked a Thanksgiving turkey. Talk about pressure! Whole Foods had them covered, though, teaming up with Progressive Insurance to create the Thanksgiving Turkey Protection Plan. Customers who had disastrous turkey results simply submitted a Whole Foods receipt, a picture of the failed turkey (shared on social media, with permission of course), and the story behind the fiasco. The first 1,000 people who filed a claim received a 35 USD Whole Foods gift card.

Partnerships are getting people to think about brands in a different context. I mean, Whole Foods and Progressive? Who would have thought it? It shows that they understood what people were (are) going through.

4. Limited editions. Who knew January 25 was National Opposite Day? Chobani did, launching its #SwitchTheChobaniFlip challenge on TikTok (its first on the video-sharing app). To play, Chobani created a limited edition yogurt container where ingredients were 'flipped' - the larger compartment held its new crunchy cookie-dough topping, and the smaller compartment held the yogurt – opposite of its traditional yogurt packaging. Chobanians (yeah, I made that up) entered for a chance to win a case of the not-sold-in-stores yogurt by uploading a video to TikTok with the hashtag #SwitchTheChobaniFlip. The Flip campaign was a hit, with 2.6 billion (billion!) views in the first two weeks. What's the takeaway? Chobani used its new TikTok presence to connect with new consumers in a fun way. The limited edition product made it even more coveted, along with the fact that you couldn't buy it online or in stores - you had to engage on social. And the top-of-mind strategy? That when people are choosing which yogurt to put in their Instacart or IRL cart, they'll choose Chobani.

As the pandemic surged, lots of brands replaced their typical sales and marketing campaigns with messages of hope and gratitude. Jonas Soda Co, maker of unusual craft soda flavors, and Coca-Cola put their messaging where their labels are. Jonas created





### "The pandemic is driving brands to go where the people are"

12 different labels for its cream soda, using ideas and photographs submitted by fans (something the soda maker is known for). Coca-Cola's 'Together Tastes Better', an extension of the 'Share a Coke' campaign, included 40 different labels supporting everyday heroes such as health workers, teachers and parents. Consumers were able to buy the special-edition bottles in stores for a limited time, or order a custom bottle online to send to the hero of their choice. For me, this campaign went beyond limited editions to reimagining your product. These beverage companies took their ordinary sodas and made them extra special, gift-worthy, a way to show gratitude during difficult days. That messaging only works if it truly reflects the values of the brand; for Jonas Soda Co and Coca-Cola, it does.

### There's more to come

I'm sure we haven't yet seen all the ways that Covid has affected our shopping habits, nor have we seen all the innovative ways that brands will connect with us. But one thing is certain: 'build it and they will come' no longer applies when no one is lingering in store aisles, wandering through malls, or making daily supermarket runs. The pandemic is driving brands to go where the people are. Once the world opens up again, all of us will be keenly watching to see which shopping trends persist; in which ways we go back to our old habits; and if the brands that kept us laughing, cooking, redecorating, gaming and drinking during the pandemic remain top of mind when we roam the aisles once again.



Vicki Strull is a packaging designer, strategist and speaker who advises brands on how to leverage the power of print and packaging. Join fellow trendsetters at vickistrull.com or follow Vicki on LinkedIn @vickistrull

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# WHEN SHOULD YOU START CONSIDERING UV-LED TECHNOLOGY?

tomorrow in a month

later today in the future

inawhile

NOW

someday

mañana

shortly

soon

next week

one day or another

at some point

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### Building a business that thrives

ne of the greatest assets of the label and packaging industry is its ability to innovate. We've embraced revolutionary technologies (digital printing, RFID labeling), retooled machinery around novel substrates and environmental mandates, and adopted arising methodologies to respond to emerging markets. Namely, we've set new standards, locking in our position as one of the most flexible, profitable – and acquirable – businesses out there.

With our industry consolidating faster, and M&A still at top multiples, now might be the perfect time to make a deal. But, even if you're not ready to sell, ensuring your business's maximum value is critical, as this will provide you the financial leverage and growth possibilities that help you carve out your optimal trajectory.

Covid-19 has brought a world of change to our industry. The fluctuating dynamics mean that every business needs to be operating differently. In reviewing our most successful clients, here are five activities you can do to have the greatest impact.

- 1. Commit to health and safety. Because of the diversity of news, geographic variances, and personal experiences, every client (and employee) likely has a different take on Covid. Businesses without a clear and encompassing response can lose these valued individuals simply out of fear. Implement and monitor all measures you have in place, and make sure they extend across every touch point, from initial ordering through freight and delivery. Also make sure you protect your staff in-house. Keeping your team happy and safe will ensure you can operate in the most productive fashion.
- 2. Manage cash wisely. Times of change can be times of opportunity. While we hear stories about companies that achieved success by going out on a limb or taking an aggressive new position, now is not the time to take big risks. Study every investment carefully, and consider all possible outcomes – whether things get better worse. Avoid large capital expenses that require a sizeable sales push or a lot of customer education. Many industries are going to face even greater struggles, and many companies (even in favorable segments) may fail due to poor decisions. Stay cash-positive, and make sure any move you make will help you grow through multiple opportunities.
- 3. Build your best team. The Covid fallout continues to leave many highly skilled people looking for work because of challenges outside their control. Smart companies can jump on this fleeting opportunity to recruit newly available talent (and perhaps at more favorable rates). I always say people make the business, and now's a time when having a few more winners on your team can make a difference. Look for a track record of innovation, technological savvy, and measurable achievements, and capture the game-changers. These people may come from our sector or related industries such as commercial print, marketing, or materials/ equipment manufacturing. You may have a solid growth position, but think of how much stronger it will be with the best team in the business.
- 4. Review your markets and adjust for the (new) future. Every great entrepreneur is constantly evaluating and adjusting for the idiosyncrasies in their markets. In times past, this process was a lot easier. Now, much of the traditional strategic growth planning has been replaced by crisis management.

The best companies are finding ways to once again be proactive. Look at what's happening not only in your clients' markets, but in the markets of their customers. And examine this daily. The future of a number of industries is hanging in the balance, so those that



### "Those that can triumph in the Covid market can become the next leaders of our industry"

they support will suffer too. What can you change to affect this? Consider every customer's value. What have they meant to your company? How profitable is their business? How does their (changing) future look for the next three or five years? Are they a smart fit for your long-term strategy? Answering these questions will help determine your path. Don't be afraid to shift focus to more favorable markets if you have the capabilities and capacity to serve them. Look at markets that have a strong, sustainable fit for your products and develop a buy or build strategy to enter them.

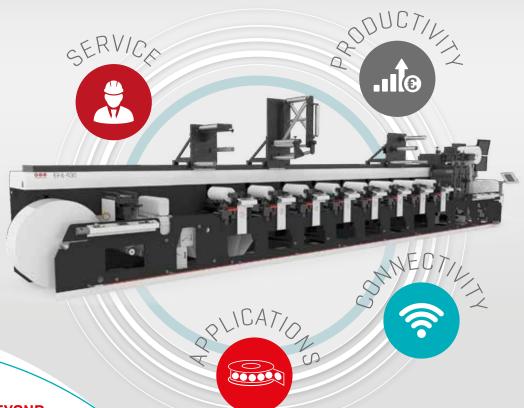
5. Maximize your best differentiators. Competitive differentiators are important in any economy. Right now, those differentiators must be things that deliver real value. Examine all your assets and reevaluate what you can offer. Customers align with suppliers for numerous reasons – the most important being that you can answer their needs better than anybody else. There are new needs now, and we'll see more to come. Keep a thoughtful eye on continually carving your unique differentiators and staying focused on resolving clients' challenges.

The Covid crisis has impacted virtually every industry. As we adjust to the ever-changing 'new normal', we must return to the characteristics that made labels and packaging great in the first place. Be flexible, financially sound, innovative, solutions-oriented, customer-focused, and in charge. We've weathered tough challenges before. Those that can triumph in the Covid market can become the next leaders of our industry.



Bob Cronin is managing partner of The Open Approach, an M&A consultancy focused exclusively on the world of print. To learn more, visit www. theopenapproach.net, email bobrcronin@aol.com, or call (001) 630 323 9700





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## Young managers – Elizabeth Yerecic, Yerecic Label

Elizabeth Yerecic, key account manager at Yerecic Label, discusses the importance of developing a younger, integrated workforce. Interview by Jordan Hart



Elizabeth Yerecic, key account manager at Yerecic Label

y journey to ending up at the family company was a little more indirect than my siblings. When I went to college, I started out as a major in political science and Spanish because I wanted to be a prosecutor. Two years into my program, I did two internships: one with the district attorney's office and one with the sales team at Yerecic Label. That was when I made the switch and decided I wanted to come into the company full time after graduation.

There was never any pressure to join the family company. That's something my parents excelled at, making sure we landed where we were passionate about in our career. I never thought I would be a key account manager for labels, but I really enjoy it. I enjoy the people in the industry, I learn something new every day, and it is so rewarding to do what I do and serve the industries that we serve.

We focus a lot on immersing ourselves within our industries, so we go to a lot of trade shows and different industry events. That has given me opportunities that I think are unique for a young person in the industry. That is what helped to accelerate my career quickly, having all these opportunities to be face to face and

learn from people that have so much more experience. My dad calls it baptism by fire; I laugh at that, but it is true. He has done a great job at putting me in those positions where you have to take a risk and put yourself out there and it's a really good learning experience.

### Developing a young workforce

About ten years ago, my dad looked around and realized we didn't have a lot of young people here, so he made a concerted effort in the 2010s to change the way we were looking at the company and how we were communicating so we could attract

that is internally when I'm learning about our materials and technology or externally when I'm at a customer and I'm learning about their needs, I really try to listen a lot more than I speak.

In the future, I would like to see the print industry continue to grow and be more inclusive. I want to see it grow in a manner that is sustainably focused on end-user solutions. In terms of diversity, I want to see diverse people within the label industry. I want to see young people, I want to see women and people of color, and you don't get those great perspectives unless you open the doors to them.

"Being a lifelong learner and having a good work ethic are the most important weapons you can employ against that feeling of not belonging when you're in a new environment."

different generations and build our future.

On the production side, we have a program called 'Tier training schedule', which lays out the path for everyone from a finisher all the way up to a shift manager. It shows what steps they need to take, the training they need, and how their compensation will be reflected in all of that learning. Providing a clear path to success when someone is interviewing is really powerful for a young person to see their future. Our sustainability efforts both within our manufacturing processes and our product lines are also attractive to the next

I think something a lot of young people struggle with early in their career is feeling like they don't belong, or are unsure of their decision making. They don't want to say or do the wrong thing when they are just beginning their career. Being a lifelong learner and having a good work ethic are the most important weapons you can employ against that feeling of not belonging when you're in a new environment.

I try to learn as much as I can, watch as much as I can, and speak to as many people as I can, and most of all, listen. Whether

### Rising star

Elizabeth Yerecic received the Rising Star Award, sponsored by the Label Academy and Avery Dennison, at last year's Label Industry Global Awards. Since joining Yerecic Label full-time in 2017, she has already become a key figure in the company's growth. She was quick to join the workforce development committee at TLMI and helped to co-chair two successful sessions, 'Training for your future' and 'Strategies for hiring', at the 2019 printThink meeting. Elizabeth heads Yerecic's Product Development Cross Functional Team, and successfully launched Yerecic Label's SustainLabel! line. A passionate environmentalist, she also lobbied for Yerecic Label to join the Association of Plastics Recyclers and quickly became an active member.

Go to www.labelawards.com to watch her acceptance speech.



For more information about Yerecic Label, go to ylfresh.com



Bernhard Grob has spent a productive lifetime at Edale working through the golden years of the narrow web industry — and particularly pioneering flexo press sales in the old Soviet Union. Now he has written a new book detailing these fascinating experiences. Interview by Andy Thomas-Emans



### L&L: What year did you enter the narrow web label industry?

Bernhard Grob: I entered the narrow web label industry in January 1987, having moved from Switzerland to the UK to join Edale. My focus was to expand its export sales, which at the time were 5 percent, by setting up direct export sales and a distributor network. Being a 'St Galler', I knew of Gallus, but the narrow web label industry was totally new to me. Drupa 1986 was the turning point. I approached a number of exhibiting UK companies with the view to offer them my services and bring my young family to my wife's home country. I received a number of positive replies, mostly from companies involved in labels, and the decision to join this industry was made with a fast-track learning of this exciting sector and especially flexography.

### L&L: What were you doing before that?

BG: Having gained a degree in pre-press during a four-year apprenticeship as 'Schriftsetzer' in the late 1960s to early 1970s at the print college in St Gallen, I spent a few years in printing companies, experiencing the move away from lead typesetting and letterpress printing to film-based pre-press and offset printing. Being involved from the start of the pre-press revolution taught me that technology and constant learning would be crucial for my future development. Moving to Zurich a few years later as head of pre-press and proof-reading, I got involved dealing with advertising

### "The introduction of water-based inks was as important as the novelty of sliced bread or instant coffee"

agencies, gaining an insight into how printing was perceived from a different perspective. This attraction meant further years of studies with Swiss diplomas in Advertising and Marketing to get a job in this field. After some time in advertising and publishing, with a stint working in Paris, where I met my English wife-to-be, the move into marketing for a multinational manufacturing company was a logical progression, dealing internationally with a strong focus on exporting worldwide.

L&L: In the mid-1980s letterpress was still the dominant technology in Europe for high-end label applications. Was it a serious challenge for you to promote flexography to narrow web converters at that time?

BG: As I started life in the printing industry when letterpress was the dominant process, I knew flexography as a similar but simpler process, mainly used for low quality package printing. However,



Drupa 1986 already indicated that flexo was a printing process to be watched, because pre-press companies such as anilox, photopolymer plate and ink manufacturers saw great potential in a lower cost printing process by developing products to enhance print quality. The higher production speed of flexo presses was an additional advantage for ever-increasing label volumes versus the much slower semi-rotary and rotary letterpress machines. Therefore I was convinced that flexo, especially in the label industry, had a tremendous future and I was ready for the challenge of doing all the necessary 'mercenary' work, in close collaboration with key companies in this field, to promote flexo, besides promoting an unknown press manufacturer to the world.

### L&L: How did you view the early development of UV flexo compared to water-based and solvent-based flexo for narrow web presses?

BG: Solvent-based ink, with all its environmental issues, was the norm and, may I add, nasty for the people working with them. The introduction of water-based inks was as important as the novelty of sliced bread or instant coffee. One article in my book, written by a flexo printer, dwells in more detail on this issue. Water-based inks, along with advances in anilox and photopolymer plates and more refined flexo presses, were key to the gradual and then rapid growth of flexographic printing. I remember the first UV flexo ink test prints we conducted from an Australian ink manufacturer in the late 1980s and early 1990s, promising already the next level in flexo. This development was no surprise as UV inks were already successfully used with letterpress.

### L&L: Your early focus was on the 'developing' markets of eastern Europe and Russia. How much of a challenge was it to sell narrow web flexo there?

BG: I go back to when it was the market of the Soviet Union until the end of 1989/90. While working in Switzerland in the 1970s for a company exporting 95 percent worldwide, I was part of a sales strategy meeting when the European sales manager mentioned that the company should now put a foot into the Soviet markets, in anticipation that communism would fall one day. GEC Milan 1987 was my first exhibition to promote flexo presses. I met, out of the blue, a Hungarian customer whom I asked how could I explore sales into a closed Soviet market? He took me straight to the stand of Brueder Henn, a well-established Austrian trading company selling MAN Roland offset presses into Soviet bloc countries. This became my first and most important decision and distributor appointment, leading to flexo press sales prior to the collapse of communism and, later, to our most successful distributor. In these early years, we were selling a 'flexo philosophy' as being the new and future printing process where huge profit margins and a quick return on investment was possible. Many such first flexo press investors



"When we first exhibited in Moscow. self-adhesive labels did not exist, hence novelties were welcomed. Visitors grabbed them from the stand and stuck them all over the place outside the exhibition. Quite unexpectedly, a scary police officer visited our stand, telling us to stop distributing such labels immediately"

were not printers but business people who spotted an opportunity where their money could grow quickly. Many such stories are highlighted in my book.

### L&L: What changes have you seen in these markets since the 1980s?

**BG:** Of course, the collapse of communism was a historic step, opening huge economic opportunities. My company benefited from this enormously by having an already active distributor in all the newly formed countries of the former Soviet Union. This led us to become the number one flexo press supplier in Russia by the 1990s. No surprise then that Russia was my most visited country, documented by several stories in my book. Many countries from what is now called CEE (central and eastern Europe) have quickly reached standards equal to western Europe and contributed strongly to the growth of the label industry. Eventually, global label printing companies formed partnerships or set up their own production sites to benefit from the strong growth that followed, expanding their global supply chain strategy accordingly.

### L&L: What about other global markets you have sold into?

BG: The Pacific Rim became the second most important export market and we supported Labelexpo Singapore from the start, demonstrating flexo and screen printing machines. This led to many press installations in Singapore and other countries in that part of the world, progressing into China in the mid/late 1990s. The Middle East, Latin America and Africa followed, with India starting to emerge at the beginning of the 21st century, gaining ground after a slow start.

L&L: Edale has always been a strong champion of producing packaging (particularly cartons) as well as labels on narrow web flexo presses. Why did you develop that strategy while other press manufacturers focused mainly on the PS label market? Is there an ideal press width for producing packaging? BG: When we first exhibited in Moscow,

self-adhesive labels did not exist, hence novelties were welcomed. Visitors grabbed these new self-adhesive labels from the stand and stuck them all over the place outside the exhibition. Then, quite unexpected, a scary police officer visited our stand, telling us to stop distributing such labels immediately. Instead, however, Russia had a big demand for packaging material, to replace plain paper with printed packaging for things like butter wrappers, sausage skin (casings) and wet-glue vodka and beer labels. But label presses were too

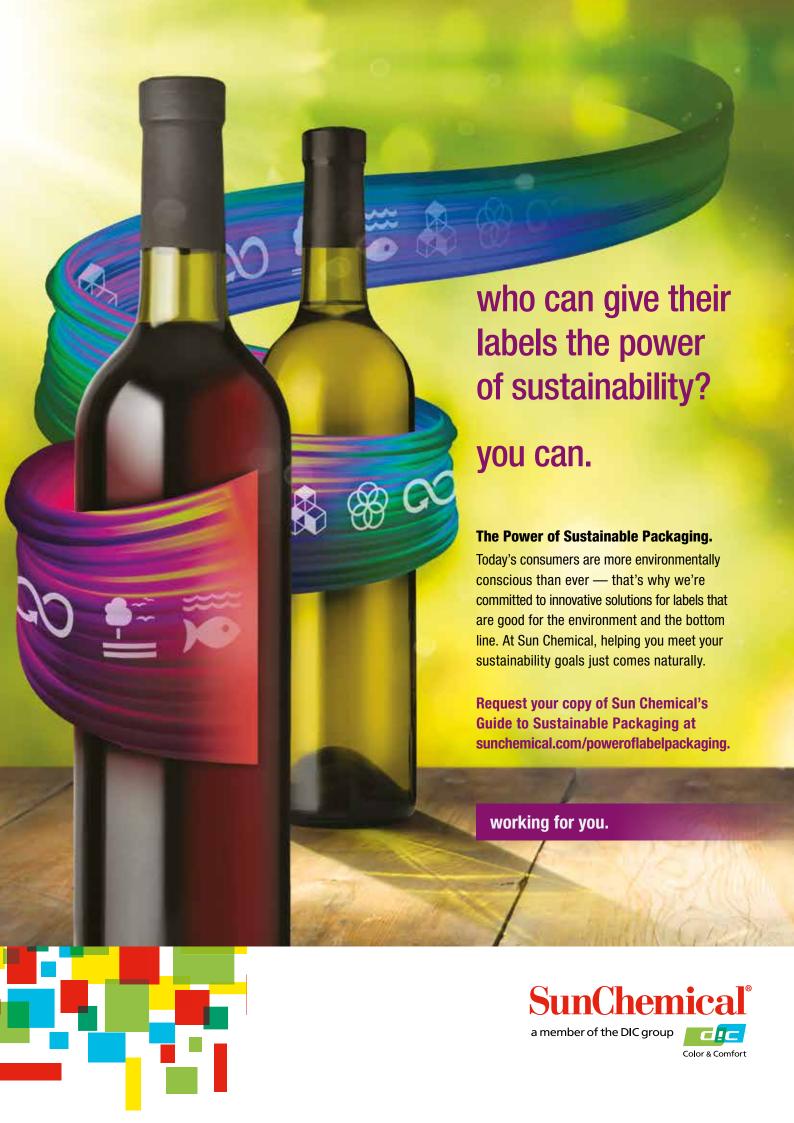
narrow. Based on our strategy as a bespoke niche press manufacturer, we decided to launch a 510mm-wide (mid-web) flexo press which led to instant success. Later, we added in-line flatbed die-cutting and creasing modules to enable single pass folding carton production; so the same press could produce reel to reel packaging, reel to sheet wet-glue labels, folding cartons and of course, in the future, also self-adhesive labels. As we were the first label press manufacturer with a mid-web flexo press for packaging, folding carton and labels, this unique solution became a worldwide success, especially after we exhibited it at Drupa 1995. Being the first and being different paid off once again for my company.

### L&L: Edale was an early pioneer of the hybrid digital/flexo press. How do you see hybrid technology developing in the

BG: Following Drupa 2000 where Indigo's Benny Landa launched digital printing in a big way, we decided that our company was too small to develop our own digital







press, but that there was an opportunity to be a perfect engineering partner to digital printhead suppliers, to design and build their web transport platform, to incorporate their inkjet heads/module, getting a well-proven digital press. These initially digital-only partnerships developed further into digital hybrid presses, with flexo, screen and all sort of embellishment and finishing options being added. Once more, being first paid off and put the company ahead of other label press manufacturers. Today, there is a market for both, hybrid and digital-only presses, with basic converting features becoming standard as with conventional label presses. Printers want their bespoke press configuration to suit their needs best and, to maximize their productivity with the objective to achieve optimum profit margins in an ever increasingly competitive environment.

### L&L: Taking a wider view, what are the biggest changes you have seen in the narrow web label and packaging market over the last 30 years?

BG: Starting with the earlier mentioned technological changes in flexo, the expanding range of labels and now also packaging applications, substrates and the many niche solutions outside the common label industry, such as printing conductive inks for RFID, keyboards, mobile phones and white goods products – just to mention a few. I remember once judging the World Label Awards when a new category for technical labels was introduced and I had to explain to other judges that it was not the dot gain, print quality and registration accuracy to look out for, but the innovative aspect of the label function.

The change from mechanical to servo-driven presses was a major technological step. Despite the fact that servo was already successful in many other industries like automotive, aerospace and machine tools, adopting it to web printing and converting required further development and an additional set of skills by recruiting software engineers. Once more, my company was at the forefront in this development thanks to our involvement in bespoke machine design which required servo well before it became a must for label presses.

Globalization and the importance of the supply chain, amalgamations, succession planning from the many first-generation label pioneers, and getting involved in out-of-the-box opportunities in new technologies, applications and solutions which did not exist, are other aspects I enjoyed and still involved in, and following closely.

In conclusion: I am convinced that the narrow web industry with its many innovative people and companies will



"The collapse of communism was a historic step, opening huge economic opportunities. My company benefited enormously by having an already active distributor in all the newly formed countries of the former Soviet Union. This led us to become the number one flexo press supplier in Russia by the 1990s"

continue to play the most attractive niche role within the whole printing industry.

### L&L: What are your main interests outside the packaging machinery industry?

**BG:** Having spent a considerable amount of time travelling the world for 30 years I was looking forward to spending more time with my wife and our two wonderful grandchildren. Also discovering the pleasure of gardening and nature; travelling more frequently to my home country, Switzerland, not just for the annual skiing holiday; and, last but not least, using my experience, knowledge and connections in my new capacity of BMGrobConsulting.

### L&L: You are about to publish a new book on your experiences in the label industry. Can you tell us something about that?

BG: A business friend who knew of my travel journals I have written over 30 years encouraged me to write a book, not knowing what it involved. When I started the book it was not too daunting, however, it soon became obvious that it would be a major task. It also became clear that I wanted industry figures to contribute to

give a wider view on the three decades from their individual perspective. The overall intention was to summarize a golden area of the narrow web label and packaging industry, with its many global, political, economic and social influences and changes. The book expresses my personal experience and wonderful memories from all over the world as a snapshot of my extensive travels. The book, 'Destination – Travelling the world for the printing industry' has been designed by a student from the Department of Typography and Graphic Communication of Reading University, UK, and it will be printed by Xeikon on its digital Sirius press and finished by Mueller Martini. The book will be available in early Spring as a limited edition. It is not for commercial sale but donations are welcome and will be used to support young people within the graphic arts industry, with Reading University as the main beneficiary.



For more information about obtaining a copy of Bernhard Grob's new book, contact bernhardgrob. destination@gmail.com



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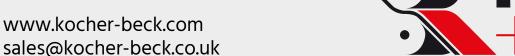
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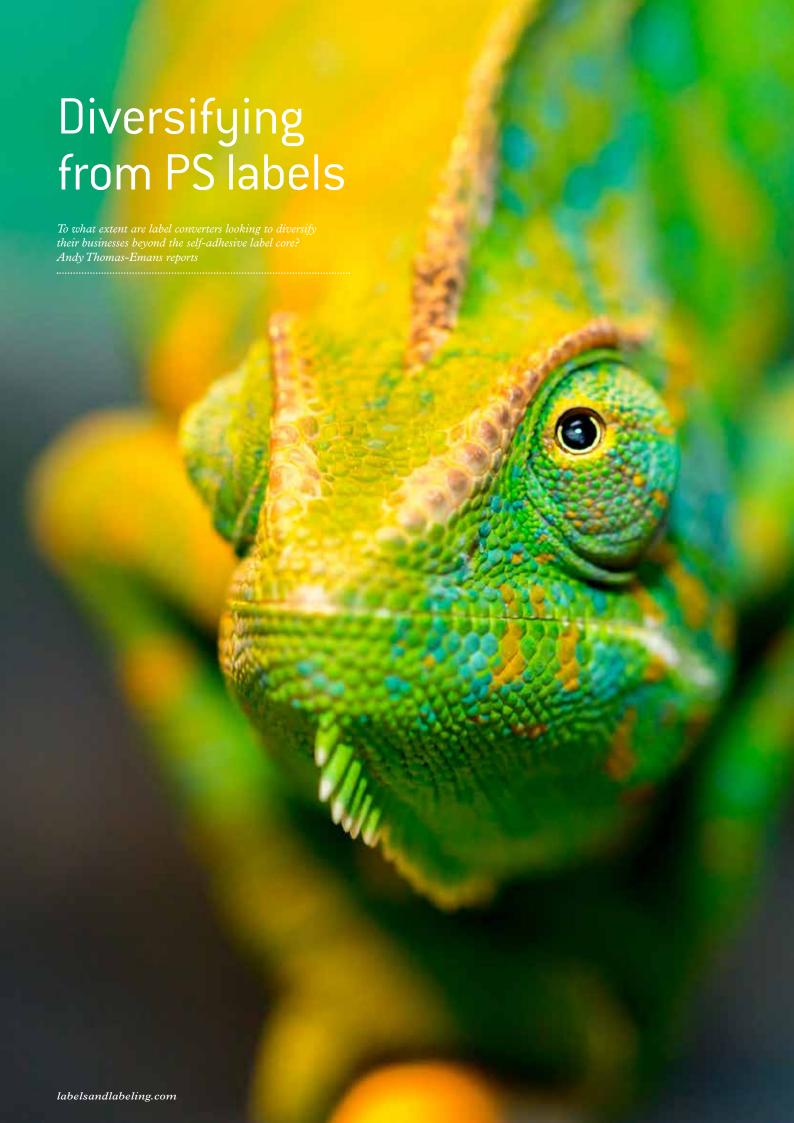
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he narrow web label industry has a long-standing genius for technological reinvention. Consider that the industry moved wholesale from letterpress and offset to flexo to digital and hybrid combinations of these processes along with screen, foiling and other value adding systems, all in the space of a couple of decades.

But the core product manufactured on these machines - pressure-sensitive labels - remained remarkably constant for most of this time.

The reason is not hard to find – there was little motivation to change. The two decades from the mid-1970s were a period of sustained growth for PS labels as brand managers substituted PS for wet-glue, and the versatility of the PS laminate format continued to find new applications in areas as diverse as chemical drum labeling and brand security.

The dominant print and converting technology for PS labels was gear-driven narrow web in-line presses, with web tension systems designed to pull robust laminates through the printing, decoration and converting stages of the press. Handling unsupported film on this generation of presses presented a major challenge.

It was the development of a new generation of press technology based around servo motors on the print and web tension systems which allowed unsupported films to be handled. And about the same time, in the late 1990s, brands

### "Sleeve labels were the first major diversification project undertaken by the narrow web PS label industry"

started to substitute PS and wet-glue with shrink sleeve labels.

Shrink sleeve labels quickly proved to be an excellent product for the agile narrow web converter, allowing market share to be taken from the wide web flexible packaging converters who dominated the volume market but could not compete at the short run end. And what was a short run for a wide web CI or gravure printer was a medium-run length for the narrow web printer, greatly increasing press uptime when printing shrink sleeve labels. So shrink sleeve labels were the first major diversification project undertaken by the narrow web PS label industry.



### Flexible packaging

Developments in brand expectations and technology have now opened up a new range of diversification opportunities for the narrow web label converter, this time in flexible packaging.

On the marketing side, brands have been looking to extend the success they had with short run label production to new flexible packaging formats – and in particular, the highly versatile stand-up pouch. The ability to target different demographics with multiple SKUs without taking on additional warehousing and product obsolescence costs, along with mass customization and personalization, created a strong pull towards new production technologies.

As with the shrink sleeve market in the 1990s, virtually all flexible packaging volume was produced by highly efficient wide-web CI flexo and gravure presses, tuned for speed and throughput but slow to change over and with high levels of waste and expensive pre-press, making short run jobs uneconomic.

Flexo press manufacturers were at the same time developing presses able to handle a wide range of unsupported substrates and in wider press widths. A new category of 'mid-web' press was emerging, generally 26in (670mm) wide, and these presses were more efficient at producing the larger formats demanded by shrink sleeves and flexible packaging, greatly reducing waste compared to using narrower width presses on larger packaging formats.

Digital was also now playing in the mid-web market after HP Indigo launched its 30in HP 20000 press in 2014.

There are big advantages in integrating flexible packaging and shrink sleeve

label capabilities with existing PS label operations. Perhaps the biggest is to offer customers a 'one-stop shop', allowing the converter to color-manage different packaging formats on the brand's behalf and to act as one point of contact for managing everything from graphics to scheduling and logistics. Multiple types of labels and flexible packaging can be printed and delivered in one delivery, ready to pack.

For the brand, this means tighter control and less paperwork, only having to do accreditations once rather than on multiple print suppliers.

### Knowledge base

One of the reasons that shrink sleeves and flexible packaging remain a highly profitable niche for label converters is that the cost of entry, not just in terms of equipment, but more importantly, the skill sets, is relatively high.

At a minimum, the conventional press requirements for both shrink sleeves and flexible packaging demand heat management, automated register control and closed-loop soft tension control. Heat management mainly takes the form of chill drums, but press manufacturers are also looking to replace or augment mercury UV lamps with UV LED, which virtually eliminates the transfer of heat to the web.

For successful shrink sleeve production, a wide range of skills need to be mastered.

Ink selection, for example, is critically important, since inks and coatings must be resistant to 'cracking' when the film is shrunk, and also be able to resist the heat of the shrinking process.

The kind of pack the sleeves will be shrunk onto will determine other aspects of ink selection. If the container is metal or glass, this is considered a full barrier to ink migration. But for a plastics container the converter will need to consider the use of low migration inks.

In terms of equipment, shrink sleeve converters will need to invest in seaming and doctoring equipment. They will also need to understand pre-distortion at the prepress/design stage (printing graphic elements, so they shrink to the correct size on the pack). Converters should also familiarize themselves with characteristics of the shrink tunnel on which the final label will be applied to the container, and ideally carry out testing on mock packs. Experienced shrink sleeve converters often invest in their own miniature conveyor belts and shrink tunnels to carry out their own tests before entering production.

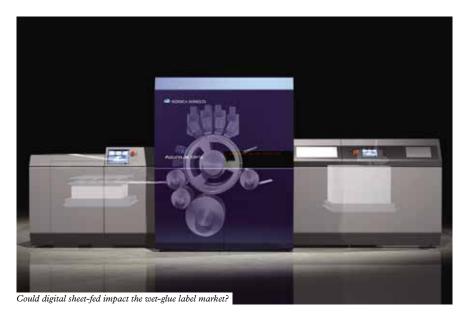
#### Flexible skill set

Flexible packaging presents its own unique range of challenges revolving around the multi-layer construction of the materials and the fact that we are now dealing with primary packaging, not secondary packaging, as with labels.

Converters will therefore need to acquire a comprehensive understanding of paper, foil and filmic substrates, their barrier properties and how they interact in multi-layer constructions.

There are specialist requirements for inks and coatings Inks which have to withstand high sealing temperatures, and presses need to be specified with multiple drying/curing processes including hot air as well as UV and UV LED to handle the full range of coatings required. Ink migration issues will need to be considered, requiring low migration UV and UV LED inks to be selected where appropriate.

Different pack sealing methods need to be understood, along with specific user requirements for the many different



### "Challenger' brands are far less likely to have an established supply chain for their full range of marketing collateral needs"

types of liquids, powders, gels, creams and solids that have to be packaged. A good understanding of form, fill and seal machine operations is essential.

It is also important to specify finishing equipment that can handle a variety of material thickness and tensions, and this will require a skilled finishing team as materials are often tricky to process and unstable compared to labels.

The sales team, who will be guiding clients through the specification process, will also need to be fully up to speed on all these issues.

Often overlooked are the longer lead times and minimum order requirements when ordering materials. As the flexible packaging market is dominated by high volume printing, the supplier industry is set up accordingly, and converters will need warehousing capacity to house master rolls along with the appropriate slitting equipment.

### **Folding cartons**

Another branch of packaging open to diversification by narrow web label converters is folding cartons. Narrow web presses can certainly be built to the specification to handle heavier stocks, and in-line flatbed die-cutters or rotary die systems allow converters to match the cut/ crease requirements set in the traditional sheet-fed offset market.

Some typical applications of this machinery include UK-based Reelvision, which specializes in pharmaceutical, healthcare, personal care and FMCG

### Flexible packaging case study

TQL Packaging Solutions in Dallas, Texas, is an excellent example of a converter diversifying into shrink sleeves and flexible packaging and moving from a narrow to a mid web format.

TQL recently installed a Nilpeter FA-26 press (in fact this was the machine's beta installation) configured with ten UV LED flexo stations and both UV and Electron Beam lamination in-line. E-Beam lamination has proven film-bonding properties with a wide range of substrates including BOPP, PET and LDPE-based sealant films, aluminum foil, and papers. EB laminated structures

exhibit good water, and food resistance, are suitable for food packaging with FDA compliance, and odorless.

TQL was already seeing growth in flexible packaging and shrink sleeve labels on its existing narrow web film-adapted presses, so it made sense to move to a wider format. 'We've done well to jump to 26 inches,' says Scott Smith, owner and president of TQL. 'At this width, we're able to address a piece of the market that we had not been wide enough to service previously.'

TQL is running jobs on the FA-26 at or below 25,000 feet, and set-up times are actually faster than its narrower equipment with set-up automation. 'We are noticing far better efficiencies in set-up, and less waste, even with a much wider web than we're used to running,' comments Smith.

TQL targets business with complex graphics that require photo image quality and fades to zero, markets that traditionally required offset and gravure printing.

Smith explains: 'There's a huge number of buyers out there that want the super high quality and consistency that they're used to getting from gravure. This new press allows us to deliver on that expectation with quicker turnaround and lower cost.'



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cartons. The company recently invested in an 8-color, 540mm wide Edale FL-5 carton line, including an FDC 600 web-fed flatbed die-cutter. Reelvision was, in fact, a key partner for Edale back in 2007 when the press manufacturer set about developing a new generation of single-pass flexographic print and flatbed die-cutting technology specifically for the production of cartons, at that time called the Edale Gamma – which evolved to become the FL-5.

Another FL-5 installation is at Morocco-based Imprimerie Ideale, in this case, a 510mm wide, 8-color machine equipped with a screen module and a rotary die station for in-line die-cutting, embossing and sheeting. CEO Youssef Ajana explains that the rotary die station is intended for longer run work, while the first machine with flatbed die-cutting is for short to medium runs.

But there is no doubt that the folding carton market has proved a tough nut to crack for label converters, and it is an open question whether future developments in digital print and finishing will tempt them to look again at short run small format cartons.

Such systems have been available for some time without sparking significant interest from label converters. As far back as Labelexpo Europe 2013, HP Indigo launched its HP 30000 digital carton press alongside partners Scodix and Highcon, demonstrating a fully digital workflow from print to embellishment and cut and

More recently, Xeikon demonstrated short run variable in-line print + varnishing of folding cartons followed by off-line cut/creasing on a Bograma BSR 550 and folding/gluing on a Herzog+Heymann unit.

But Xeikon's Filip Weymans confirms that there has not been a serious uptake by label converters, who have shown far more interest in stand-up pouch and paper cup applications as a means of diversification. In the case of the HP 30000, buyers have tended to be bigger multi-site converters who might also have separate label operations.

### The 'commercial' space

The launch by the Tarsus Group (organizer of Labelexpo) of the Brand Print series of shows poses an interesting question for label converters – could the commercial print sector be a new frontier of opportunity?

Brand Print focuses on print for the retail market – typically POS/POD, indoor and outdoor self-adhesive graphics, printed shelf display units, and so on.

Would any of these markets be of interest to the narrow web label converter - and what kinds of investment would it entail?

To answer that question we need to examine the seismic shift taking place in the brand/retail landscape. Here a new generation of 'challenger' brands is taking on the established global players and carving out new niches, especially amongst younger, more social media savvy and lifestyle-conscious consumers.

'Challenger' brands are far less likely to have an established supply chain for their full range of marketing collateral needs. These might include in-store display units, signage, indoor and outdoor graphics, and even stand graphics and brochures to take to trade shows. The main technology used to print these products in the commercial print sector is Wide Format inkjet.

Wide format printers can be anything from 18in to 100in wide (45-254cm), with anything larger known as Grande or Ultra-Wide. It is the former systems we are interested in.

For some years, we have seen an increasing take-up of wide format printers by label converters, and suppliers such as Roland DG have been promoting these machines at Labelexpo for many years.

An excellent example of a narrow web label converter really pursuing this route is UK trade printer Baker Labels. MD Steve Baker already knows a thing or two about diversification, having shifted the company from digital-only to incorporate flexography



"The development of a new generation of press technology based around servo motors on the print and web tension systems allowed unsupported films to be handled"

then setting up a 'commercial' Print Bureau as a complementary operation and most recently, a division supplying digitally printed flexible packaging.

The Print Bureau's machine line-up includes a Roland Versa UV inkjet and Roland Soljet Prolll wide format printer with Matrix laminator and Graphtec cutting plotter. To this, Baker has added two Ricoh Pro C5100 color laser printers and a Ricoh Pro C7200x Graphic Arts Edition press.

The ProC7200x is an interesting machine, crossing over into both the commercial and packaging spaces. It is a 4-color toner-based press with an additional station offering optional special colors and white, clear, invisible red, neon pink and yellow toners. An in-line finisher allows the press to create booklets from duplex print work.

Explains Steve Baker, 'While our main focus is on the roll label market, the quality that can be achieved on these presses helps to complement our offerings. Ultra-short runs, proofing and mock-ups with embellishment effects can be produced in a cost-effective way without using up the main presses."

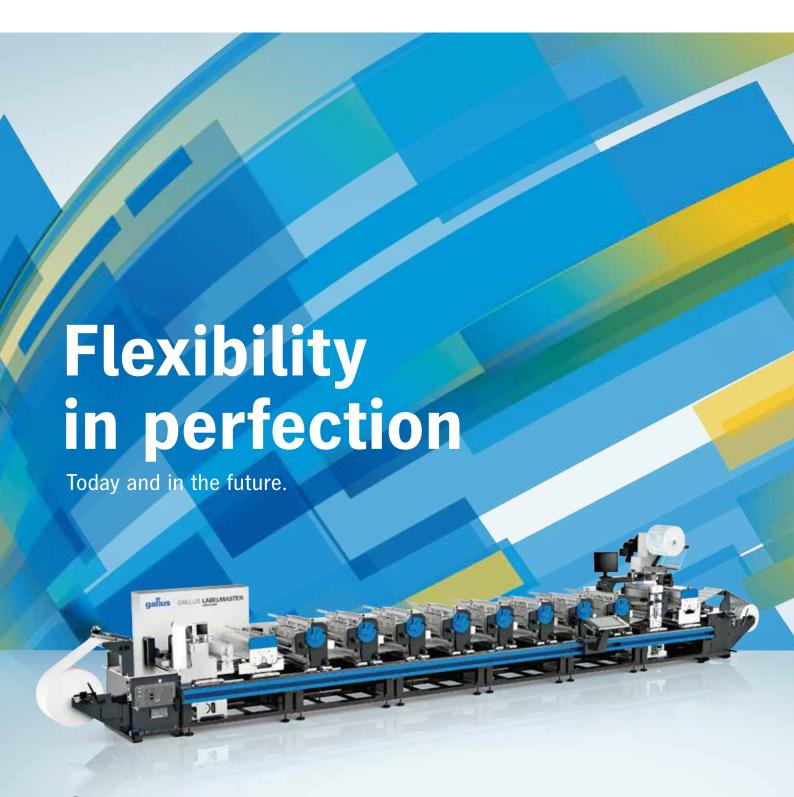
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For more on flexible packaging, see page 104







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# Workforce woes: hiring and retaining young workers

Recruiting younger workers is only half the battle. Jordan Hart reports

orkforce woes are nothing new to the label industry; hiring and retaining younger workers continues to be a concern for both suppliers and converters. Rather than focus solely on hiring millennials, or even Gen Z workers, it is worthwhile to see what it takes to keep them.

In the first issue of 2020, L&L reported on the continuous struggle of workforce development; in light of the Covid-19 pandemic, it is worth investigating what has changed and what has remained the same. Prior to the pandemic, the employment rate was low enough to warrant being called 'the tightest labor market in recent history'. The small talent pool to fill positions was holding back growth of the industry. Despite the influence of the pandemic, this has not changed.

"There is such a wide spectrum in the industry, from the beautifully decorated wine and spirits labels that might interest someone with an eye for art, to the vaccine labels and the temperature sensitive materials that appeal to someone who loves science. There is something for everyone"

Statista reported in December 2020 the number of unemployed Americans was over ten million, almost double the December 2019 unemployment number of 5.84 million. However, December 2020 was much better than April 2020, which saw peak unemployment at over 23 million people. In spite of these large employment fluctuations, the label industry has been relatively stable. During 2019 the National Association of Manufacturers reported 522,000 US manufacturing jobs were open in the Unites States; while that number dipped during the pandemic, nearly half a million manufacturing jobs remain open.

Chad Moutray, chief economist at the National Association of Manufacturers, reports: 'Manufacturing job openings in August reached 460,000. This improvement suggests that firms are once again increasing their interest in adding new workers, even as the sector attempts to rebound from the Covid-19 pandemic and the overall labor market has changed dramatically."

The essential nature of manufacturing, specifically within the label industry, has proven to be a buffer from the steep unemployment rates other sectors are facing. With this stability and security in pay, the printing industry should be attracting younger workers, many of whom are burdened with tremendous student loan debt. Forbes reported that the national student loan debt in the US increased by 170 billion USD during 2020. Far

cheaper than a traditional four-year college education, the path to the skilled trades should be beckoning younger generations closer with the promise of a shorter, less expensive education, steady pay, and a market full of opportunity. Yet the predicament of selling print to younger workers continues into 2021.

The primary issue is awareness, of the industry as a whole and of the opportunities within it. A common complaint of recruiters is that printing is not a 'sexy' industry and that is deterring young, eligible workers away from promising positions.

'I think people don't know just how sexy labels are,' said Dale Coates, engagement director at TLMI. 'There is so much fascinating science that goes into the entire process, from the supplier chemistry to what the converters have to do, and the fantastic designs people come up with to make the product more marketable. Maybe we just aren't doing a good enough job of marketing how sexy these products are.'

Because there are so many facets to the label industry, there are many avenues of success within it. Lauren Walsh, director of operations at TLMI, comments: 'There is such a wide spectrum in the industry, from the beautifully decorated wine and spirits labels that might interest someone with an eye for art, to the vaccine labels and the temperature sensitive materials that appeal to someone who loves science. There is something for everyone. It is just hard to get in front of each person and point out what is in it for them.' Walsh admits that 'solving the recruitment and retainment issues can feel like climbing Mount Everest.

To address this lack of awareness, TLMI established a workforce development committee which is dedicated to growing and retaining the print workforce. According to Jessica Harrell, director of technologies at Anderson + Vreeland and TLMI workforce development committee member, one of the biggest challenges to getting young people into the industry is the expectation that college is necessary for success.

'A lot of people are telling their kids they need to go to college even if they don't really want to,' says Harrell. 'College is great, but it may not be for everybody. There are a lot of good jobs that don't require a four-year degree in our industry; the issue is letting people know they can make decent money without those education costs.'

To help with the financial burden the expectation of education brings, TLMI offers scholarship opportunities as part of its recruitment efforts. It offers both two- and four-year scholarships for students pursuing a career in the print industry.

'One of the things we started doing two or three years ago is inviting the four-year scholarship award winners to the annual meeting,' Harrell says. 'They get to interact and speak with some of the members and have that opportunity to really see what the organization is about. I think that is helpful because instead of the experience just being a website or maybe a couple of phone calls, the students get to really engage and immerse. That's been a really positive experience for them.'

Hands-on engagement seems to be one of the best ways to get people into the industry; however, workers often need experience to get experience. Linnea Keen, president of TLMI, says: 'We put a lot of gravity into people's experience, which is a challenge. When you are recruiting for certain positions, you may be looking



for new perspective, energy and skill set but you want them to have experience. Potential candidates may be right out of college or new to the area and lack relevant experience - it's a catch-22.

Keen continues: 'Whether in the office or on the operating floor, the industry is really starving for qualified employees. Our members, both converters and suppliers, are faced with the same challenge. In some cases, the company may be a family-owned business, so there is a lot of family involved in it or very tenured employees. The question is how to attract younger people and create opportunity that interests them.'

To resolve the experience issue, Keen explains what some companies are doing to accommodate new hires. 'As everybody is challenged with this, some companies are creating new positions or entry-level positions that may require slight, non-industry related experience, or a targeted skill set so the candidate can join the company to learn the business and industry with the potential to progress within the organization.'

While these new positions remove some barrier to entry, hiring younger employees may be only part of the problem: how do companies keep them? A survey by Glassdoor found that a third of employees in the United States, United Kingdom, France, and Germany have experiences or witnessed ageism while at work; the US reported the highest rate, followed by the UK, then France and Germany.

According to Glassdoor, 'Ageism is a prominent form of discrimination across

### "Prior to the pandemic, the employment rate was low enough to warrant being called 'the tightest labor market in recent history"

all countries represented in this study and significantly more younger workers across the UK and France report experiencing or witnessing this type of discrimination than their older peers. With Generation Z entering the workplace, and people working longer before retiring than ever before, we are seeing a significant range of ages within companies. Businesses must ensure they treat all employees as individuals — no matter their age — in order to get the best out of their workforce."

Perhaps because Millennials, and now Gen Z, are more likely to experience ageism in the workplace, they are the demographics that are more passionate about diversity and inclusion in the workforce. The survey found that 62 percent of Millennial employees in the US and UK said their company ought to be putting more effort into increasing the diversity of the workers; this rate was also over 50 percent in France and Germany.

The print industry is not exempt from ageism. At the recent Future Print Virtual Summit, day one focused on 'Young guns' in print and the experiences of young people in the industry. Karis Copp of FM Future, Mikaela Harding of Avery Dennison, Amanda Brown of Drytac, and Dempsie Giles of Black Dog Digital sat down to discuss how they all ended up in the print industry in

the session 'Falling into print'. As young women, they shared their experiences of what it is like to work in the print industry both as a woman and as a younger worker.

A side effect of the workforce gap in hiring and retaining younger workers is that it creates a disconnect in transferring knowledge from older employees. Karis Copp addressed this: 'There is certainly a skills gap issue as well. We do need to make sure we are closing that and taking advantage of the knowledge that people who have been in the industry a bit longer

Harrell agreed: 'I think everybody realizes there needs to be a variety of ages, at least I hope people do, because people don't want to work when they are 70 or 80 and there needs to be a good change over and a good

This transition from the older generation to the younger is crucial for a successful succession of skills and leadership. Harvard Business Review in the article 'Am I old enough to be taken seriously?' addressed how damaging this gap can be: 'When older workers doubt the competency of those younger than them, they fail us. They are not helping the next generations develop transferable skills. They're building barriers of mistrust.'

Rather than have a one-way exchange



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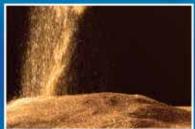
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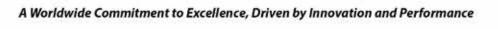
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of knowledge, potentially with a bit of mistrust from the older generation in the younger, there is room in the industry for a give and take of insights from both older and younger workers. 'You need that experience and that knowledge, and the younger people will learn that,' said Giles. 'But equally there could be a few other things that the older generation could learn from the younger.'

While younger workers do not have the same experience level as older workers, they will never develop that experience if they are not given an opportunity to grow. Similar to the catch-22 Keen addressed, companies want seasoned employees who can progress within the company and be decision makers, yet they do not create an environment that builds up younger employees.

Amanda Brown sees this lack of developing younger employees at tradeshows. 'It is important to have younger people attend the shows,' she said. 'Companies don't always bring the younger people to the shows because they are not necessarily the decision makers, but I think it is important because one day they will be. If they are able to learn now, then they will be able to make better decisions later on and have more of a voice in the industry."

While age is a hot topic in the industry, and the concerns with replacing the ageing workforce are justified, age is not an insurmountable issue. Skill, willingness to learn, and hard work are far more important.

'Regardless of how old you are, whether you are in the older generation or the younger generation, I'd encourage: don't be put down by that. It's all about working together and trying to ultimately make the best thing happen, bringing ideas to life. Don't let age put you off,' said Giles.

Harrell echoed Giles's comments: 'You just have to push your way through, no matter what your age is. I think there are opportunities

there for everybody. Sometimes you might have to change people's perceptions but if you do a good job and you push and work hard, there is opportunity for everybody.'

"It is important to have younger people attend trade shows. Companies don't always bring younger employees to the shows because they are not necessarily the decision makers, but one day they will be. If they can learn now, then they will make better decisions later on and have more of a voice in the industry"

The print industry and the opportunity it offers are not going anywhere anytime soon, but its workers will be. As more and more Baby Boomers and members of Generation X retire, they will leave behind big shoes to fill. Without a culture in place to cultivate and train younger workers, the industry will be in danger of being under-staffed and under-educated.

Culture may be the missing element of drawing in and keeping younger employees. 'Company culture is very important in retaining any employees, especially young entry level employees,' said Walsh. If employees feel valued and appreciated, with a good group of people around them, they are more likely to stay at the organization.

Getting involved with the trade organizations can really help young people stay in the industry,' added Brown. 'They provide support and create a network of people who are around our age, which is helpful to build connections and relationships.'

However, culture is not just organizations or associations, nor is it a trendy office space. According to Keen, 'Company culture makes a big difference for employees, but it is so varied by company and is dependent on the individual. It doesn't necessarily have to be a hip and cool office; maybe employees want to be autonomous or maybe they want to work collaboratively in a team or have a good work-life balance. Maybe they value and identify with the company's vision and mission or want the company to be environmentally sensitive and work on sustainability initiatives.'

There is no one size fits all with culture, but it can be a powerful tool in attracting younger employees. Demonstrating that a company offers an accommodating and growth-focused environment may be invaluable in the recruitment process and help to bring label companies to the forefront of the hiring field.

'It would be great if students were coming out of school, from programs other than graphic communications, thinking about the label industry as possible employers,' said Walsh.

The future of the industry could be very bright, but it starts with the interns, the new hires, and the entry level employees. Companies need to treat younger employees as if they not only have a future at the company, but as if they could be the future of the company.



For info on TLMI's workforce development committee, go to tlmi.com







SMART, GREEN, PERSONALIZED

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# Beverage labels become greener and smarter

Beverage packaging is one of the most dynamic and saturated of label markets. A personalized, eco-friendly and smart label might be the ultimate recipe for success. Piotr Wnuk reports

esigning, developing and printing beverage labels is a tricky business. Even excluding beer, wine and spirits, the huge range of beverages to be covered includes coffee, tea, juice, sports drinks, water, and countless other soft drink-related products. Like the beverage consumer, the beverage label is continually evolving, influenced by changing demographics and new printing and finishing techniques.

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The global non-alcoholic beverage industry remains one of the fastest growing of all label segments, expected to grow from USD 378.38bn in 2020 to USD 410bn in 2021 at 8.4 percent CAGR. The Business Research Company estimates it will continue to grow by at least 7 percent CAGR to reach a value of USD 532bn in

An increase in the global population - expected to reach 10 billion by 2050 - and a rising global middle class with disposable income will drive this demand for beverages. Countless niche brands are challenging the established global players as they seek an increased presence, especially as organic ingredients and healthier lifestyle options are a growing trend, particularly among younger consumers. The pressure on a label to make a sufficient impact on customers that it results in a purchase decision is now greater than ever.

### A good label sticks

'A good label needs to stick,' jokes Filip Weymans, vice president of marketing at Xeikon. 'We know that a label has to stick to the bottle. But besides the bottle, it also needs to stick with the consumer. The look and feel, the story and how it is told, have gained significant importance. The story is not something a printer can influence, it's more the designer and brand owner's job to express the authentic story, but the printer can recommend how to best present that story.

'A beverage label should articulate the brand's message or brand statement,' echoes Riley Nay, senior product manager for films at Avery Dennison. 'The label needs to ensure the brand stands out on the shelf whether that be through facestock, ink, graphics or embellishments.'



### "There's increased interest in coatings that provide textured effects, high-performance adhesives for cold foiling, and the use of high luster metallic inks to add a touch of luxury"

Andy Igglesden, category sales director Labels & Board at Coveris UK, thinks that print and color consistency is of significant importance. 'Color is used as a major cue within beverage labeling to navigate the category on-shelf and to identify different product types,' he says. 'Given the way this is merchandised and recognized at the point of sale, delivery of color consistently and across multiple substrates and print processes is critical to brand management.'

Likewise, Sarah Harriman, marketing and communications manager at printing ink specialist, Pulse Roll Label Products, agrees that strong, bold colors, sophisticated graphics, and decorative label embellishments must make the product stand out from the crowd in a sector that is full of innovative new products, all vying for the consumer's attention.

'Outstanding effects for serious aesthetic appeal can be created using a combination of high-quality inks and varnishes to create the perfect premium non-alcoholic beverage label,' says Harriman. 'Functionality and product protection are also critical, along with coating properties

such as scuff resistance, which are vital in protecting the label and bottle from damage on high-speed bottling and packing lines to transit and shelf displays."

Liz Waters, managing director of Watershed Group, an Irish converter with production plants across several countries in Europe, confirms that beverage clients are producing a premium product that requires premium print quality.

'Print capability and the necessary capex investment to achieve this is critical to servicing this market. High-end brands need to be supported by converters that can not only provide maximum brand impact on a shelf through print quality but also guaranteed repeat print quality and color consistency,' says Waters. 'A sophisticated color management system is vital as are all the necessary in-line and off-line print embellishments.'

Stelios Manousakis, product owner at digital print specialist Mouvent, agrees: 'We see a divergence in overall styles, both bright, vibrant colors and more muted neutral tones. It seems to be an overall theme for the beverage market: either



design products with premium, flashier label designs using embellishments or specialist inks, or to strip back design into minimalism and transparent or translucent materials. Both approaches appear to be connecting with the audience, so we expect to see this accelerate further.'

### Premiumization and personalization

Health-conscious consumers are increasingly seeking alternatives to alcoholic beverages, and there's a grand offering of premium non-alcoholic products to rival their alcoholic counterparts. From mocktails to non-alcoholic spirits and alcohol-free beers, labeling is becoming more complex – often combining embellishments such as foiling, embossing and tactile varnishes to present a luxury product.

'There's increased interest in coatings that provide textured effects, highperformance adhesives for cold foiling, and the use of high luster metallic inks to add a touch of luxury. The non-alcoholic sector is certainly showing that, with the help of innovative and eye-catching labeling, it can rival its boozy counterparts,' says Sarah Harriman.

'Premiumization is the biggest trend at the moment,' agrees Paul Jones, sales and technical director at Skanem, one of the world's biggest printer groups with headquarters in Norway and production sites as far away as Kenya and Thailand. 'Everyone is trying to win the war of the shopping aisle by creating more

### "Premiumization is the biggest trend at the moment. Everyone is trying to win the war of the shopping aisle by creating more embellished or premium looking labels"

embellished or premium looking labels to differentiate between all the other products on the shelf and get the consumer to pick it up. It is widely known that if a consumer picks up your product, they will more than likely put it in their basket.

Creating an impact using the sensory aspects of the packaging is equally important, in Jones's opinion. The use of a wide range of embellishments and other techniques, which are usually seen in high-end alcoholic drinks packaging, is becoming more prominent in non-alcoholic

This theory is echoed by Adam Newman, sales manager at Labelnet, a British converter active in both beverage label markets, servicing breweries and distilleries as well as soft drinks manufacturers.

'Previously, you would associate the large spirit manufacturers with high-end embellished labels, but in the age of social media, where image and branding are so important, the non-alcoholic beverage customers are demanding high-end quality labels too. For example, tonic water companies in particular are keen to stand out from their competitors to grab a share of the market created by gin's surging popularity in the past few years,' confirms Newman.

'With mixers and alcohol substitutes now becoming as popular and value-added as alcoholic beverages, we see that these drinks are following the decorative trends of the alcoholic beverage through premium and complex embellishment,' adds Andy Igglesden.

Matt Burton, global sales director at A B Graphic, considers personalization to be one of the key trends, driving web-to-print, digital printing, and short run finishing technologies to produce stand-out labels.

'Digital embellishment solutions such as DigiJet also allow digital labels to offer that extra level of embellishment for increased personalization. We saw Coca-Cola starting this trend a few years ago. With the developments in the digital print market, we see this option continuing to trend in 2021, by being of interest to many smaller businesses without the budget of Coca-Cola,' he says. 'These same developments also enable the continued growth of the smaller brands and cottage industries, as they can also have beautiful and impactful labels. We witnessed increased support during 2020 to local

businesses, with consumers still expecting these labels to stand out on the shelf."

Adds Filip Weymans, 'There is a trend towards more personal decoration, hence the consumer market being broken down into smaller segments, addressing them with a more personal message. This pushes for more cost-effective solutions to address the varying run length with a product line and would need more efficiency to avoid

Due to the Covid-19 pandemic, major beverage brands are rationalizing the number of SKUs they offer. This is primarily driven by consumption shifts to healthy and 'functional' drinks. For example, bottled water is projected to grow at a 14 percent CAGR until 2024.

The pandemic has also affected what consumers are purchasing and has created greater disparity and erosion of middle-tier products, according to Riley Nay. 'Consumers affected economically by the pandemic have moved to lower-tier products, while those not affected have shifted to more premium products due to having extra money that would normally have been spent on entertainment and travel. We will see more consumers willing to buy products that offer immune, physical, and mental health benefits within functional beverages. Calming beverages are also on the rise as the pandemic continues to affect consumers' mental health.'

Liz Waters has also observed this trend: 'Emerging trends aimed at the healthconscious market include fermented drinks, kefir, probiotics and kombucha. Also, practically all our beer customers now offer a non-alcoholic product in their range. Premium waters in high-end sustainable packaging are also growing."

### Get smart, and OR'd

The health crisis worldwide continues to shape consumer behavior, pushing brands to interact and engage with consumers in new and innovative ways. 'Smart labeling provides unique opportunities to both directly engage with customers and effectively get across the story, innovation and create drama around the brand,' notes Liz Waters. 'The potential information gained from data analytics will also be enormous. Younger demographics already expect to gain most of their information through their smartphones - the packaging industry must take this seriously.'



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According to Stelios Manousakis, the Millennial market that the beverage sector is currently refocusing on is the first generation to grow up digitally native. Interactive labels offer more opportunity to get creative and connect the product to marketing communication in new and exciting ways,' he comments. 'Similarly, the consumer's increased focus on nutrition and ingredient data could be an ideal candidate for using smart labels as part of a marketing strategy.'

'While some of the more inventive and perhaps quirky apps left the market as quickly as they arrived, we are expecting to see QR codes, in particular, leveraged much more strongly after a slow start and connect the dots between label design and the brand content marketing programs,' says Matt Francklow, managing director at pre-press specialist Creation Reprographics. 'A crucial part of that trend has been the Covid-19 venue registration process, which has removed a lot of the uncertainty of use for consumers.'

A study published by Statista in September 2019 found that almost 47 percent of consumers in the US and UK had noticed a sizeable increase in the use of QR codes. With the technology being available by default on most new mobile technologies, it seems a prime opportunity for brands to push interactive label designs.

'We see this growing in the non-alcohol beverage space,' agrees Grey Moore, director of sales at MCC Label. 'MCC has many offerings, including QR code printing, covert and overt print solutions and implementation of RFID and NFC tags within our label offerings on a global scale. As consumers continue to rely more and more on their smart devices, implementing interactive labels is a must to capture the consumer's attention through our clients' brands. This will assist our clients to not only connect easier and faster with their consumers but will also allow a more efficient supply chain and recyclability and sustainability offering for our client's business model.'

'Brand owners love the idea of cross-promotion and gathering data on their consumers, but NFC is still expensive and watermark hidden codes require specific apps to gain access to the content on the label,' comments Skanem's Paul Jones. 'QR codes are seen as unsightly, and marketing teams don't like to look at them on their premium labels. But the smart label category is improving all the time, and the cost for NFC, watermarks, and app design are coming down, plus using apps for more than one brand is growing. Smart technology can also be used for sustainability in the Holy Grail project, which encodes watermarks in the packaging, making it easier to filter and sort packaging during the recycling process."

Avery Dennison believes that intelligent labels will continue to grow in the beverage space across many different applications.

'We have seen many brands engaging with solutions to better interact with consumers and stand out on the shelf,' confirms Riley Nay. 'We are also seeing beverage companies that utilize plastic packaging that look to RFID-based solutions to incentivize consumers to recycle and dispose of their containers properly.'

Likewise, Coveris sees smart technology as an essential step towards more effective recycling: 'We have seen a growing interest in smart solutions like AR and NFC for the beverage category," agrees Andy Igglesden. 'Combining these intelligent technologies with sustainability demands around DRS (Deposit Return Systems) and recycling systems presents an exciting opportunity for labels and the functionality of the format – moving beyond a consumer and product communication to a technology one. Advances in watermarking, smart technology, and intelligent inks are all development areas for the future.'

### Green elephant in the room

The push for sustainable packaging and label design has been gathering pace for several years. It has already written itself firmly onto the agenda for brands and their entire supply chain.

'Consumers are becoming more mindful of the impact their



Wash-off adhesives and labels are key to sustainable future, according to Coveris

"We are expecting to see QR codes leveraged much more strongly after a slow start and connect the dots between label design and the brand content marketing programs"

purchases and behavior have on the planet. As a result, they will support businesses that promote circular models aimed at reduce, reuse and recycle,' says Riley Nay. 'Brands are looking to design their packaging for recyclability, and the label plays an important role. The label can help communicate to consumers how their product impacts the environment, educate the consumer on how to recycle their product, and help enable the recycling of the bottle.'

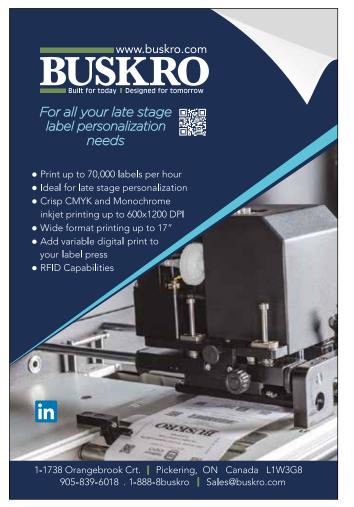
'Eco-friendly packaging practices have taken a back seat to logistics and volume management over many months, but when it still matters to the consumer, it should be just as business-critical to the brand,' agrees Creation Reprographics' Matt Francklow. 'Likewise, consumers are pushing for greater transparency to inform their purchase decisions. Not just in terms of supply chain honesty, but literally too. Labels that are transparent or translucent allow the consumer to see the product. Although it sounds simple in principle, it helps to build that subconscious trust that consumers consider when selecting products.'

'The label is a primary way to communicate to the consumer, but a good label is one that does not negatively impact the recyclability nor quality of the beverage's package,' echoes Kyle Strenski, business director, food, HPC, beverage, films, and specials in Americas for UPM Raflatac. 'Sustainability and recyclability continue to drive the agenda. More and more brands in the non-alcoholic segment are moving to labels and adhesives designed for recycling, especially when it comes to PET packaging.'

Skanem has initiated the 'Sustainable Labels, Designed for Recyclability' program, which covers all aspects of the label supply chain and recycling process, pointing out that it is not just about making a label sustainable but also about designing the packaging for recyclability.

'Customers in the past would put a paper label on a PET bottle as it was cost-effective. This combination contaminates the recycling process; therefore, we are recommending moving to synthetic substrates and wash-off adhesives to enable the PET bottle to be









Premiumization is increasing important, often combining embellishments such as foiling, embossing and tactile varnishes to present a high-end luxury beverage product

### "Sustainability will continue to be a major focus as brands look to leverage earth-friendly packaging materials and materials that promote circularity"

recycled fully,' says Paul Jones.

According to Kyle Strenski, more beverage companies are focusing on improving their packaging's sustainability – and they are starting to look at the impact of their labels. 'We can now give brand owners the option to use post-consumer recycled (PCR) content, reduce fossil fuels with our bio-based materials, enhance recyclability for PET bottles with wash-off label materials and adhesive, and keep label waste material out of the landfill by utilizing our RafCycle by UPM Raflatac program,' he adds.

'Pressure will continue to be put on brand owners to seek out more sustainable options,' agrees Liz Waters. 'Watershed Dublin has been working recently with a UK beverage brand and became the first printer in Northern Europe to manufacture a label produced from 40 percent citrus waste and with a 20 percent lower CO2

Rob Lorkins, operations manager at Labelnet, thinks that everyone needs to be mindful of their CO2 footprint and look at what we can do going forward to minimize it. 'It is not always easy with self-adhesive materials, but there are interesting developments. Everyone in the supply chain is aware that it is an issue that needs addressing,' he says. 'We continue to look at sustainable sourcing materials and how we can positively impact this with our production processes.'

Sustainability is also a top priority for Xeikon: 'Recyclability of a print, a healthy environment for the press operators to work in, not being harmful to the consumer, and understanding how even downstream in the decoration we can bring benefit to the environment,' are the most important areas for Filip Weymans. 'For example, we have developed together with Tigital Tattoo a technology which allows for full-color direct decoration on a glass bottle and achieves 82 percent CO2 reduction in the whole process compared to conventional direct print onto the glass.'

Creation Reprographics, as well as supporting its customers with digital workflows that reduce the need for face-to-face meetings and the accompanying CO2 emissions, also champions water-washable flexo plates that eliminate the need for harmful solvent washout.

'Customers are often surprised at the benefits – we tend to think that sustainability makes a concession in performance or quality, but the Asahi AWP plates, for example, actually show the opposite to be true,' says Matt Fracklow. 'The plates offer superior quality, ink registration and make-ready, while actively eliminating the need for solvents in the platemaking process. This is the principle that we see guiding the beverage labeling market: sustainability cannot just be treated as a buzzword, it must be meaningful, actionable, and repeatable to make a difference and resonate with what the industry and the consumer alike are looking for.'

As one of the leading finishing equipment suppliers, A B Graphic acknowledges that its customers and the brands they serve are demanding more sustainable options. 'Clearly, this is reflected in ABG's innovations, which are designed to reduce waste and improve productivity, such as our non-stop winders,' details Matt Burton. 'In 2021, we will be officially launching EcoLeaf, which we provisionally launched to beta customers last year. EcoLeaf is an innovative foiling solution that dramatically reduces CO2 emissions. We see this as a key component of our sustainable beverage labeling offering in 2021.'

Material selection and a shift away from PET substrates into polyolefin materials such as PE and PP-based labels to support the separability and recyclability requirements of Deposit Return Systems are equally crucial. According to Andy Igglesden, 'Wash-off adhesives and labels are key. There's an increased demand for recycled content in both paper and plastic substrates combined with brand owners looking to communicate this sustainable benefit.'

'With our solutions around APR and EPBP requirements, as well as being a full-time member of the Ellen MacArthur Foundation, MCC is leading the sustainability charge on a global scale,' confirms Grey Moore, director of sales at MCC Label. 'The non-alcoholic beverage vertical is a leading segment for this, as this is where we see the largest volume of plastics being used (PET and HDPE). We are working very closely with our clients and delivering the most sustainable solutions for them around material reductions, recyclable compatibility in the waste streams and, overall, reducing our carbon footprint, as well as our clients'.'

### Sustainability dominates

'Sustainability will also continue to be a major focus as brands look to leverage earth-friendly packaging materials and materials that promote circularity,' says Avery Dennison's Riley Nay.

'Given the changing priorities and regulatory demands of sustainability, driven by deposit return schemes, simplification and rationalization of materials and adhesives will be key going forward to support a circular economy through separability and bottle recycling, echoes Andy Igglesden. 'We also believe that the category will place greater reliance on labels going forward as a smart technology carrier given it is the only component on the pack that can integrate this. Ensuring minimal contamination to maximize the value of recyclate and drive investment in recovery systems is a key driver. Therefore, designing labels to meet the needs of the systems is critical.'

'We believe that inks, substrates, label technologies, and adhesives will continue to advance. Sustainability, as always, will continue to gain more and more momentum. Beverage packaging will continue to evolve, while the decorating methods will need to meet the demands for communication, sustainability, and performance,' concludes UPM Raflatac's Kyle Strenski.



For more information read 'Focus on label markets: Beverage labels' in L&L's new Label Academy subscription service: www.labelsandlabeling.com/label-academy

# Holy Grail of a circular economy

Digital watermarking can potentially fast-track the entire packaging supply chain to a genuinely circular-economy model. Piotr Wnuk reports

ne of the most pressing challenges in achieving a circular economy for packaging is to improve the sorting of post-consumer waste by accurately identifying recyclable packaging, resulting in more efficient and higher-quality recycling.

'The current low EU recycling rates are mainly related to lack of infrastructure/collection schemes and consumer participation, next to inefficient sorting,' says Gian De Belder, technical director of packaging sustainability at Procter & Gamble. 'We want to bring the solution for the latter.'

'Effective sorting of waste is a barrier to wider recycling of packaging materials in Europe,' agrees Silviu Popovici, CEO of PepsiCo Europe. 'This industry-wide challenge can only be resolved by working together for a system-wide solution.'

#### The search begins

Project HolyGrail, established in 2017 under the New Plastics Economy program of the Ellen MacArthur Foundation, brought together 29 corporations, led by P&G. The initiative investigated new ways to improve post-consumer recycling through more effective sorting of materials.

### "Effective sorting of waste is a barrier to wider recycling of packaging materials in Europe"

Digital watermark technology developed by US-based Digimarc was ultimately chosen. It won support from a majority of stakeholders and passed a basic proof of concept on a test sorting line.

Digital watermarks are imperceptible codes, the size of a postage stamp, covering the surface of consumer goods packaging. They can carry a wide range of attributes such as manufacturer, SKU, whether it's come into contact with food, type of plastics used, and composition for multilayer objects.

With respect to sortation, Digimarc Barcode turns an object into an Internet-of-Things object,' explains Larry Logan, chief evangelist at Digimarc. 'It links to virtually unlimited data, so the object can inform the sorting equipment who is the manufacturer, what is the specific product, resin type, the individual components of a multi-layer package, prior food versus non-food contact, and so on.'

'By making the packaging more intelligent through digital watermarks, an add-on module linked to existing sorting equipment can read these barcodes for recycling and can do a more effective job,' says P&G's Gian De Belder.

'This includes jobs that are not possible today, like making a distinction between food and non-food packs, sorting efficiently all colored packs including blacks, proper sorting of full-body shrink-sleeved bottles, proper identification of recyclable vs compostable packaging, efficient sorting of multi-layers, and many

Once the packaging has entered a waste-sorting facility, the digital watermark can be detected and decoded by a standard high-resolution camera on the sorting line, which then, based on the transferred attributes, can sort the packaging into corresponding streams. This results in better and more accurate sorting streams and high-quality recyclates, benefiting the

complete packaging value chain.

'Any hardware would require some change. Initially, for sortation, this will be delivered in the form of an add-on module, which allows a facility to enjoy the benefits but at a lower capital cost than replacing existing equipment,' confirms Logan.

'The module works in parallel with existing NIR scanning, although Digimarc is upstream a very short distance on the conveyor because if the object has a Digimarc Barcode, then we know the precise identity, and again this is coordinated with the X-Y air iets.

'Over time, these components will be integrated into the single sortation unit. Although we provide the basic specifications, sorting hardware manufacturers can add their features and "magic sauce" for additional functionality and competitive differentiation.'

Digital watermarks also provide other opportunities. Consumers can use a smartphone app to find details about the packaging and how to recycle it; brand owners can add product details and use it as an interactive engagement tool.

'Digimarc Barcode is more than a digital identifier,' adds Logan. 'It is a platform that combines both the enhancement of objects with

### What they say about HolyGrail 2.0

'Flint Group Packaging Inks can bring unique capabilities and expertise to the project to drive the development of digital watermarking and coding. This includes our Global Innovation Centre where we can design supporting ink and coating technology and full-scale test simulations of any proposed solutions.' Paul Winstanley, senior director of technology and innovation at Flint Group Packaging Inks

'Improved recycling will increase the value of packaging waste, driving higher collection rates and making it a valuable commercial resource for the future. The great thing about digital watermarks is that one technology can be used along the full lifecycle of a pack: from packing lines through to improved sorting at material recovery facilities and recyclers." Graeme Smith, head of product sustainability for flexible packaging and engineered materials at Mondi

'We are very proud to be a member of this ambitious initiative. We are convinced that we need to transform the industry away from a linear economy towards a circular economy model. It's critical to embrace digital and smart ways to achieve this.' Alina Marm, head of circular economy hub

'CCL Label has been pioneering digital watermarking solutions such as Digimarc for several years, many of our food and beverage, home, and personal care production sites are licensed partners. As the Digimarc platform has been chosen as the principal technology of the cross-value chain initiative HolyGrail 2.0, it is time for us to take the next step and support the initiative to improve sortation and higher-quality recycling rates for packaging with our expertise in label and sleeve technology.' Marika Knorr, head of sustainability and communication at CCL Label

'Developing digital watermarks for packaging is a prime example of how collective action and technology can advance a circular economy.' Silviu Popovici, CEO of PepsiCo Europe.

### "Collaboration is the way forward to achieve the EU's circular economy goals"

a digital identifier and also the detection of the identifier by a wide variety of hardware devices and smartphones. There are benefits throughout what we have characterized as the package journey. Some examples are parts matching in manufacturing, trackand-trace in the supply chain, greater efficiencies in retail store operations such as scanning at check-out, consumer engagement, and our new solution for recycling. We have also introduced serialization in print, which means that each individual item can have its own unique identity. We refer to the comprehensive nature of these solutions as benefiting the package journey from birth in design and manufacturing to rebirth in recycling and new products.'

Digimarc's technology uses a short identifier, such as the Global Trade Item Number carried in the EAN/UPC code or an internal tracking code for the manufacturer. Upon scanning the code, there is virtually unlimited data in the cloud that can be associated with the object.

'The approach is the same, regardless of whether it is a printed object or plastic substrate, although in the plastic substrate we use a different approach on the identifier in order to avoid conflicts with scanning at retail check-out,' says Logan.

### Industry comes together

The branded goods industry stepped up in 2020 to facilitate the next phase of the initiative – HolyGrail 2.0 – under the patronage of AIM, the European Brands Association. The leadership team, which includes Procter & Gamble, Nestlé, PepsiCo and Danone, joined forces with over 85 organizations from the packaging value chain with the ambitious goal of assessing whether a pioneering digital watermark technology can enable better sorting and higher-quality recycling rates for packaging in the EU.

The three key ingredients here are innovation, sustainability, and digitalization, combined to achieve the objective of the Green Deal towards a clean, circular, and climate neutral economy,' says Michelle Gibbons, director general at AIM.

'It is terrific to see such enthusiasm from across the industry and to be able to unite such expertise from the complete packaging value chain, from brand owners and retailers to converters, EPR schemes, waste management systems, recyclers, and many more. Collaboration is the way forward to achieve the EU's circular economy goals."

The new phase of this project includes the launch of an industrial pilot to prove the viability of digital watermark technology.

'We are currently working with both Tomra and Pellenc, and of course, will be working with other manufacturers as this is a solution across the ecosystem,' remarks Logan.

'Tomra has been prominent for its role in the HolyGrail 1.0 initiative, and we held two highly attended demonstrations at their facility outside of Koblenz, Germany. The demonstration proved our joint implementation feasibility, with a very high success rate across 49 different objects, addressing various print labels and packages, and plastics substrates.'

'During our first open house, we had many people joining us during the proof-of-concept trials, and each of these associations truly embraces the technology,' adds P&G's Gian De Belder. 'The next steps have been identified, and we hope to soon bring it into a (test) market to further learn and prepare for a full rollout. We need to work on solutions that offer benefits in both LCA metrics and recyclability profile, as the ultimate goal is to become fully circular. We need to all speak the same language and, here, harmonization of all aspects – especially recyclability definitions – is crucial. We

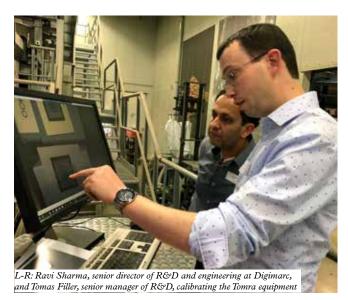




Looks like this

Performs like this

Digital watermarks are imperceptible codes, the size of a postage stamp, covering the surface of a consumer goods packaging



need to move away from opinion-based assessments and create scientific-based assessments.'

According to Logan, the technology's adoption must involve participation across the entire value chain – including brands, sorting equipment manufacturers, facility operators, and often trade and producer responsibility organizations – to create initiatives such as eco-modulation of Extended Producer Responsibility (EPR)

'We take a methodical approach and look for facilitators such as AIM for the HolyGrail 2.0 project, similarly with other initiatives we have underway,' confirms Logan. 'The initial focus is on Europe, and now we are pushing forward for opportunities in North America. There is also a great deal of interest coming from Asia, but again it's important to grow with a sustained approach. Our timing is very much tied to the pull of the market, which of course is having to move rapidly owing to packaging regulations for PCR content, various public pledges by brands, and consumers demanding solutions to address plastic waste.'

'I am a true believer in cross-value chain collaborations, as no single company can solve these challenges on their own. HolyGrail is a perfect example of this. The keyword is definitely collaboration,' concludes Gian de Belder.



For more information about the HolyGrail 2.0 initiative go to aim.be/pririties/digital-watermarks

# Lappí eyes further expansion

With four plants in Spain and Portugal, Grupo Lappi has ambitious plans for further international expansion. James Quirk reports

ncreasing consolidation among label converters is an established trend, but according to Seville, Spain-headquartered Grupo Lappí, southern Europe is still playing catch-up compared to the north of the continent. With two plants in Spain and now an established production base in neighboring Portugal, the company has set its sights beyond the Iberian Peninsula with ambitious plans for continued expansion. Its extensive technology portfolio has also been expanded with the addition of semi-rotary offset printing through the installation of a Miyakoshi MLP press.

Founded by current president and CEO Antonio Lappí's father in 1959, the company moved away from its initial focus on commercial printing and into wet-glue label production in the mid-1970s. In 1990, it added self-adhesive labels to its repertoire. Today, the latter make up 40 percent of production, with wet-glue labels at around 48 percent, and the remainder taken by shrink sleeves and wraparound labels. The vast majority of production - 85-90 percent - is for the food and beverage markets, with small amounts sold for cosmetics, pharmaceutical and household cleaning products.

Antonio Lappí, after a stint at Leeds, UK-based label converter larvis Porter, joined his father's business in 1998. Since then, the company has ramped up its investment in new technology and significantly expanded its local and international footprint.

### **Expansion**

Grupo Lappí began its expansion from its headquarters in Seville with the acquisition of Barcelona-based label converter Gràfiques Martorell in 2004, then adding Gràfiques Llopart, also in the Catalan capital, in 2013.

International expansion began in 2019 when Grupo Lappí bought Gráficas Calipolense, the largest printer of labels for the food sector in Portugal. The deal brought with it two plants in the country, one dedicated to self-adhesive label production and one specialized in wet-glue labels.

Fifty-three percent of Lappí's business is generated in Spain and Portugal, with 47 percent from exports. Of the latter figure, 80 percent comes from Europe – particularly Belgium, France, Germany, Holland and the UK; the remainder is export business in South America and Africa.

With the acquisition of Gráficas Calipolense came a client base in Portugal's former African colonies such as Angola, Cape Verde,

### "If you look at the big label converting groups, there is a concentration in the northern Europe. Southern Europe needs a similar concentration"

Mozambique and São Tomé and Príncipe. Lappí also sells labels to Benin, Equatorial Guinea and Morocco. 'Various markets in Africa - Equatorial Guinea, for example - are strong for wet-glue and wraparound labels. Wet-glue for beer labels; wraparound for water labels,' says Antonio Lappí. 'The pressure-sensitive label market is beginning to grow, albeit from a very low base. But the advantage of wet-glue labels remains - they are much more cost-effective.'

Firmly established as a leading converter on the Iberian Peninsula, Grupo Lappí is far from finished when it comes to further acquisitions, with at least one more likely to be concluded this year. NDA agreements are currently in place with companies in Spain and Portugal, and also in France – a country Antonio Lappí says 'interests us very much'.

'If you look at the big label converting groups in Europe, there is a concentration in the north of the continent. Companies in Germany have spread east; others have formed in the north. But there has not be quite so much consolidation in the south. There is potential for a group that covers Spain, Portugal, France and Italy, for example. Southern Europe needs to have a concentration in a similar way to northern Europe.

Can Grupo Lappí become a leading southern European converter group? 'We want to grow exponentially, both organically and through acquisitions,' says Lappí. The company's ambition is not limited to its home continent, however. 'We are also looking at the USA as a potential place to open a manufacturing facility. But it could also be a different, more innovative model – putting printing equipment into the factory of a client there, for example. The pandemic has shown us the importance of having local suppliers.'

What does the company look for when deciding to acquire another business? 'A good balance sheet, of course. But the people are so important. We would never acquire a company that doesn't already have a talented team in place."

This focus on people, on personal relationships and local service,





"Personal relationships used to be about lunch; now they are about solving the client's problem in real time"

#### Lappí adds semi-rotary offset with Miyakoshi

The newest addition to Grupo Lappí's production capabilities comes in the form of a Miyakoshi MLP13-C semi-rotary offset press. The Japanese press manufacturer's Madridheadquartered European subsidiary, Miyakoshi Europe, was established in 2015. Its semi-rotary offset technology has been well-received in the European market, with 52 installations across the continent and 21 in Spain and Portugal alone. Miyakoshi Europe has set up a distributor network throughout the continent.

'We wanted a semi-rotary offset machine for the quality the technology can produce and its capacity for short runs,' explains Antonio Lappí. 'We were clear about the configuration that we wanted. The machine's efficiency would be key, because of increasing demand for shorter runs and the need to be agile to ensure quick delivery to our customers. We wanted offset, but semi-rotary in particular with high speed and great agility.'

Thanks to a good existing relationship with OMC, Miyakoshi Europe's distributor in Spain, Lappí tested the Japanese manufacturer's MLP semi-rotary offset press. 'We test four things initially — quality, flexibility, speed and stability of production,' reveals Antonio Lappí. 'Then, we look at the stability of the after-sale service. We are careful — we are looking for a partner for many years. The Miyakoshi MLP surpassed our expectations in the tests.'

The Miyakoshi MLP press features five semi-rotary offset units and two flexo, one either side of the offset units, for applying varnish, and a die-cutting unit. It can print on film and paper substrates. Productivity and flexibility are enhanced by a repeat length of up to 406.4mm and 121m/min running speed.

Cold start and automatic plate change features reduce substrate waste and improve changeover time. Target applications are label runs between 500m and 30,000m which require different processes and finishes in-line. MLP is available in 350mm and 420mm web widths.

Since installation in late 2019, the press has made a sufficiently positive impression at Grupo Lappí that the converter has ordered two more machines for installation over the next two years. According to Antonio Lappí, the MLP's quality and efficiency were key factors in the investment. 'In every moment, we are always trying to make the job more and more efficient,' he says.

is important, but Antonio Lappí is clear that it is only one part of the story. 'We are in a sector of services, and we are a company of costs. Many converters think they can forget about this, but they can't. Clients are not hostages to their label suppliers. They are not loyal. It is about costs and efficiency. We send labels all over Europe, for example. This is not about personal relationships, but efficiency, quality and price. Personal relationships used to be about lunch; now they are about solving the client's problem in real time.

'Usually, the owners of the companies I visit do not want to sell their businesses, or aren't actively looking to. But then they see what we are doing and see the threat down the line to the future of their business.'

#### Improvement

The threat comes in the form of Grupo Lappí's relentless focus on continuous improvement. 'Lean manufacturing, efficient management and production – it is super important. We develop it every day. Companies who are professionalised and efficient can flourish.' Grupo Lappí prides itself on adaption and innovation. 'We are constantly changing our ways of working,' says Antonio Lappí. 'Any roadblock that appears, we try to see the positive side – where is the opportunity?' This attitude extends to the pandemic, and one gets the impression that Lappí has relished the challenge of adapting to such difficult circumstances. 'The 2008 crisis taught us to be professional and gave us experience for this type of situation,' he explains. 'We have become even more efficient as a result of the pandemic. More agile and more flexible. We have invested a huge amount in the automation of our processes and in improving lean manufacturing. The pandemic has propelled us towards Industry 4.0 far quicker than would have happened without it.'

The company developed a mobile app for internal use during the pandemic. Available in Spanish and Portuguese, it is used by all the company's 250 employees, advising on changes and keeping staff informed of developments. 'We have adapted really well to the situation,' says Lappí. 'Communication is key to improving processes.' This online savvy extends to social media, which has also become a key tool for the company. During the pandemic, it hosted an open house which it live-streamed from the factory. It has created a Twitter feed — #LabelHub — where it shares live modifications with clients and designers.

Grupo Lappí reviews its printing technology suppliers every seven years, so decisions to invest in new machinery are not taken lightly. The converter runs 23 production lines across its plants, forming close relationships with the suppliers of equipment for each printing process. It can count on a wide range of printing technologies — including flexo and UV flexo, offset (both rotary and semi-rotary), digital, and silkscreen — and a host of finishing options.

For wet-glue label production, it relies on a fleet of nine 6-color Heidelberg Speedmaster presses. For digital printing, it runs two HP Indigo presses, one 6900 and one 6800. Four Nilpeter machines cover Lappí's flexo printing requirements – two more have already been pencilled in for installation over the next 2-3 years. The latest addition was a Nilpeter FA-17 in late 2019, installed by the Danish press manufacturer's longstanding Spanish distributor Esagraf.

In Gráficas Calipolense's self-adhesive label factory, it runs an Omet rotary offset press combined with flexo units. Finishing mainly takes place on Digicon converting lines from A B Graphic.

The most recent addition to its printing arsenal is a Miyakoshi semi-rotary offset press (see boxout). Regarding future investment, according to Antonio Lappí the company is currently evaluating 'different digital printing technologies to see if they might be able to complement the offering from the HP Indigo presses'.



Go to www.grupolappi.com/en for more information

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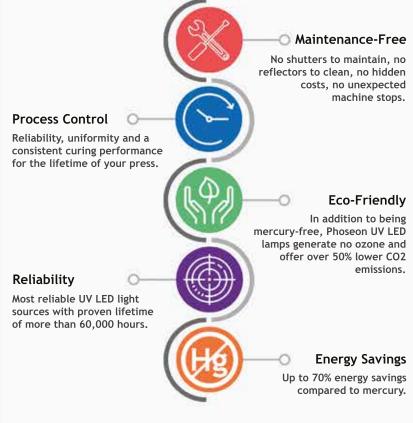
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# Luminescent colors: a special challenge for quality control

German converter Oscar Mahl has turned to Erhardt+Leimer's SmartScan UV system for UV applications. James Quirk reports

ow can you test something that is invisible? This question occurs when luminescent colors or varnish are applied to the web during the printing process. Whether a classic safety print for pharmaceutical applications or to refine products, UV applications are becoming ever more common. But how can the converter guarantee that the printing corresponds to the customer's wishes? That the position, completeness or simple presence are correct? This was a question that German converter Oscar Mahl set out to answer

Oscar Mahl, from the Schwäbisch Hall area of southern Germany, is a medium-sized company in the ownership of the Mahl family for over 100 years. With its own pre-press and a wide range of printing methods including flexo, offset and digital, the converter can cover a broad spectrum of printing challenges. Some time ago, Oscar Mahl determined that 100 percent testing of the print was required to comply with its quality assurance program. It uses camera systems for 100 percent inspection both on presses and finishing machines. However, until now, this was limited to visible print applications. By contrast, UV applications represent a special challenge.

### "This technology finally gives us the necessary quality control"

The greatest problem with print image inspection systems is usually the choosing of a specific illumination method. Usually, it is necessary to choose between white light and UV light illumination variants: white light to illuminate standard colors or film applications; UV light to make those colors, varnishes and adhesives visible that react



UV application on the monitor of the SmartScan system during an inspection



in ultraviolet light. Simultaneous use of the two lighting variants is usually insufficient, or no solution at all, as the different brightness levels have a negative influence on each other. The main reason is that the brighter white light component completely outshines the UV light component. Sufficient excitement of the UV particles is thus not possible, or only to a limited extent.

Knut Schulzke, head of production in the web-fed printing division at Oscar Mahl, found his answer with inspection specialist Erhardt+Leimer's '200 percent' inspection system SmartScan. The technology of the '200 percent' inspection was not unknown to Schulzke. For some time, two systems have been used on printing machines for daily quality control. Even in the standard version, these offer the benefit of inspecting the web with changing illumination methods. In this way, besides classic printing errors, errors in the material can also be detected - something not possible using a purely incidental light inspection source in a 100 percent inspection application.

#### SmartScan UV

SmartScan UV also uses the '200 percent' technology to inspect the web using the two illumination variants, LED white light and UV LED light, in parallel. The web is differently illuminated in sequence at full speed. The camera saves a reference image of each illumination variant, the so-called Golden Template. During the inspection run, the live images are compared with the corresponding reference image and checked for defects. Detected defects are saved in the corresponding illumination sequence

and displayed to the user. In addition, besides automatic defect inspection, the system also offers the machine operator a full-quality viewer, which shows the print image on the monitor using the appropriate illumination method.

The camera works with a resolution of 4,096 pixels transversely to the web. Errors can be zoomed in on directly on the monitor using the intuitive touch control. The separated illumination method shows the UV applications at optimum contrast levels.

'This was exactly our expectation for a camera system,' says Knut Schulzke. 'According to requirements, we use the classic 200 percent check with incident / transmitted light illumination, or we switch over to combined LED white light / UV light operation. This technology finally gives us the necessary quality control.'

It was also important to maintain the simplicity of the system. Even with the SmartScan UV, single-button operation remains at the forefront. A single press of a button and the system is ready to go.

'We have spent a lot of energy in the handling of SmartScan, in order to ensure that anyone can operate the current systems with the minimum of training and without major prior knowledge,' explains Alexander Thomalla, product manager at Erhardt+Leimer. 'We want to continue to focus on this user-friendliness to give the machine operator space to go about their daily business.'



Go to www.oscarmahl.de for more information



# Path to automation

Italian converter Ettichettificio Il Nastro has pushed its machine park to new heights of productivity and automation with Cerm's MIS. PiotrWnuk reports

ttichettificio Il Nastro, founded in 1986 in Citta di Castello, in the Italian province of Perugia, was focused entirely on adhesive tapes at the beginning of its operation but has evolved into a self-adhesive label converter. The Crisci family's business currently employs a team of 40 at administrative, technical, customer service, production and packaging offices, achieving a EUR 6 million annual turnover.

The company's machine park features numerous printing presses, including the recently acquired Nickel F350 offset label printing machine. The extensive equipment list includes two HP Indigo digital presses (6800 and 4600) featuring many of the latest-generation digital printing technologies, such as silver and invisible ink. The HP Indigo machines work in series with three Cartes finishing systems, enabling semi-rotary die-cutting, hot stamping and screen printing.

Il Nastro also operates two large flexo production lines powered by M1 370 and MX 370 presses from the Bobst portfolio. 'Last but not least is a machine designed by us and made for us by Prisma, which allows the production of multipage labels,' says Stefano Braccalenti, Il Nastro's production manager, while giving L&L a virtual tour of the facility. 'We also have three Prati control tables and many BST eltromat inspection cameras.'

Braccalenti, who has an immense passion for the business, is also one of the driving forces behind investment decisions. 'The company has always made investments to keep up to date with the best printing technologies,' he says. 'However, we have come to the conclusion that improving productivity is increasingly difficult and not only dependent on printing machinery. We have reached a level of about 10,000



# "Improving productivity is increasingly difficult and not only dependent on printing machinery"

orders per year and offer more than 20,000 different products. We realized we needed to improve everything, starting from estimation and preparation though to sending out orders.'

The entire production process was managed at Il Nastro manually and on paper. 'We always had operations under control, and all orders were produced on time, but this was labor-intensive and had to be organized daily. There was no clear evidence of the level of raw materials used. Therefore, more on-the-spot checks were needed by all departments.'

Il Nastro's pre-press department had already been working with Esko software for about a year. Still, it was completely disconnected from an old management system and therefore, the company could not exploit its full potential.

'Changing the management software while the company operates normally is not easy. Our cooperation with Cerm began in the summer of 2018. My idea was to take full responsibility for all one-to-one training, to change my mentality and my habits first and then pass it onto all other departments,' Braccalenti recalls.

About six months later, Il Nastro began to estimate all new jobs using Cerm software. By the end of 2018, every order was processed through the system rather than manually, which started bringing several streams of essential data into the equation, such as machine usage, production times, and material consumption.

'In the summer of the following year, we began to work with the entire customer





service department, both with the old management system and with the new one,' says Braccalenti. 'Initially, it was a painstaking process to carry out orders in two software platforms, but we have been hugely encouraged by quickly seeing the fruits of integration with Esko.'

#### **Automation path**

At the customer request phase, the Cerm user creates a pre-quote, collects all the customer's information, and then sends it to the technical office for an official quotation.

'After the confirmation of the quote that is generally received by email, we enter the customer's sales order by adding the requested products into a shopping cart, a process very similar to when you order anything online,' says Braccalenti. 'New products are generated from the approved estimate and inherit all the necessary characteristics. They are then shared with the pre-press department and are generated by the customer service operator, who simply drags and drops the artwork file received from the customer. The pre-press workflow automatically checks it and after quality checks by the operator, artwork approval is requested from the customer.'

When the order cart is completed, the Cerm MIS groups products with similar characteristics like format and embellishment and creates production jobs based on how many different labels there are in the order cart.

Thanks to the integration with Esko, it is then the Cerm MIS operator who, in the order generation phase, prepares the multiple layouts before the pre-press software can build a step and repeat without any operator interaction needed.

'The order is then ready, and the production manager in charge of scheduling the machines can keep stock of raw materials under control and fires up the machines given the delivery dates and deadlines requested by the customers.

"We can increase the production capacity and overall productivity by 30 percent with the same amount of people and equipment involved just by implementing our software and its integrations"

From here to the shipment, we control the progress and status by following the order through each step of operations involved, up to the delivery note,' continues Braccalenti. 'The critical part arrives once the order has been fully processed. The Cerm software gives us a detailed view into each step of the production and compares the estimated work with the actual work carried out. We can then make appropriate assessments and improve our productivity even further.

Braccalenti explains that in anything from making exact estimates through to achieving maximum precision in the programming of machines, and consequently in the deliveries, the implementation of Cerm MIS allowed the business to fully explore the potential of each printing press at its machine park and completely change the mindset of all employees, bringing new levels of productivity and analytics.

#### Take the plunge

The management software investment decision is often difficult to digest, especially for medium and small businesses. 'Looking back, I think this decision was probably the most important one for making a massive leap in quality, given the characteristics of our company,' confirms Braccalenti. 'Thanks to the full integration of the Cerm and Esko systems, we have automated a myriad of operations, which has allowed us to operate much faster and complete all orders much more efficiently."

'We can increase the production capacity and overall productivity by 30 percent with

the same amount of people and equipment involved just by implementing our software and its integrations,' adds Geert Van Damme, managing director of Cerm. 'If we implement Cerm and the customer also implements a new Esko at the same time, the interaction between both systems is the winning combination. Therefore, testimonials such Il Nastro's feedback are hugely important."

'Most printers are only focused on their input and output and do not employ people such as Stefano, who drive change and manage automation projects,' adds Van Damme. 'They expect their suppliers to do all of this for them. My message for them is: don't wait, switch now. Start simple and evolve permanently to a more automated world. The longer you wait, the bigger will be the gap with those who started already. Do not wait for a perfect Industry 4.0 dream-world to be available on a plate for you.'

In summing up, Braccalenti echoes Van Damme's thoughts on automation implementation: 'I would like to say huge thank you to the entire team at Cerm for its professionalism, especially a massive thank you to Marco Haanstra for the constant and profuse help to our company - he made us see that there is nothing more effective than the implementation of MIS software for converters of any size producing labels or flexible packaging."



For more information, read 'Workflow automation - today and tomorrow' in the Label Academy section of labelsandlabeling.com

# Xaar looks to regain printhead leadership

As Xaar celebrates 30 years at the leading edge of inkjet development, CEO John Mills talks to James Quirk about the company's new technology platform and its plans to regain leadership in the label and package printing industry

istorically, Xaar has an assured place in the early development of narrow web inkjet printing. The company's iconic 1001 print head, launched in 2007, formed the core of print engines which powered digital presses developed by a range of industry partners. Indeed at Labelexpo Europe 2011 almost one third of the digital presses were using Xaar 1001 printheads, including those from Durst, EFI Jetrion, Nilpeter and Stork Prints.

Since that high point Xaar has faced increasing competition from other inkjet head manufacturers in the narrow web sector, while a focus on the ceramic market took the company's eye off developments in the label industry, as CEO John Mills accepts: 'Our focus on the booming ceramics market meant Xaar drifted from the label industry for a little while.'

Now, having identified label and packaging printing once more as a key strategic market, Xaar aims to reclaim its place at the top table with the launch of a raft of new technologies.

Key to the relaunch is Xaar's ImagineX bulk printhead technology, the culmination of a £70m (USD 89.8m) R&D investment program, initially focused on thin film but which now sets the roadmap for the next 30 years of product development.

The investment program behind ImagineX will drive a range of performance enhancements, pushing print resolutions up to 1,440 DPI and speeds of 150kHz, as well the capability to operate at temperatures over 200 deg C and viscosities above 100cP. The printheads will also be able to handle all ink types, including

'The ImagineX platform takes all the IP generated in the last 10 years and answers the question how do we take our existing products and move things forward,' says Mills.

#### New printhead

The new 2002 printhead was developed as part of the ImagineX program and provides Xaar's core technology for the narrow web label and package print market.

The 2002 head delivers 720 DPI print resolution and what Xaar describes as 'plug and play' integration. 'Drop-in printhead alignment and mechanical tolerance improvements allow the printheads to be dropped into the printbar easier, enabling faster set-up times,' explains Mills.

A combination of Xaar's new Tuned Actuator Manufacturing (TAM2) and AcuChp technologies give the Xaar 2002 printhead improved color uniformity across the width of the printhead, while firing frequencies of up to 36kHz deliver speeds up to 75m/min at 720 DPI. The Xaar 2002 is fully backwards compatible with printers already using the Xaar 2001+.

The first press to use the new 2002 printheads is Canon's LabelStream, now successfully printing at 75m/min.

#### Digital embellishment

While inkjet is an established printing technology, digital embellishment is an exciting future trend. This means replacing UV flexo or rotary screen printing of coatings such as varnishes and adhesives with a jettable fluid. 'Xaar's TF Technology and Ultra High Viscosity capability opens up a wide range of new inkjet



"The ImagineX platform takes all the IP generated in the last 10 years and answers the question how do we take our existing products and move things forward"

#### Aqueous inks

John Mills sees a growing interest in pigmented aqueous inkjet as a significant trend. 'Clearly sustainability is becoming more important, as globally the industry is looking towards reducing its impact and the use of VOCs in inks. As such we see water-based inks becoming much more relevant and our ImagineX bulk platform will drive a step change in performance enhancements with the ability to handle all ink types, including aqueous.'

Mills says Xaar's new technology platform eliminates the need for extended drying time.

'Central to this is Xaar's TF Technology which enables us to maintain nozzle open time without the need for humectants in ink, and thus avoiding extended drying times and energy use once the ink has been printed. This combined with the ability to cope with highly pigmented inks provides a wider window of operation and will allow our printheads to be effective in this developing environment.'

Xaar also continues to work with its OEM partners on integrating LED technologies, particularly in relation to intercolor pinning, with the small LED lamps freezing the drop size within the printing process.

#### Recirculation technology

Xaar's TF ink recirculation technology was one of the key breakthroughs which cemented the position of the 1001 printhead in the narrow web industry more than a decade ago.

Together with the Hybrid Side Shooter printhead architecture, TF Technology enables ink or other fluids to flow directly past the back of the nozzle during drop ejection at very high flow rates.

This ensures the nozzles are continuously primed, keeping the printhead operational and the nozzles firing and — with the ink in constant motion — prevents sedimentation and nozzle blocking, particularly in heavily pigmented inks. Any air bubbles and unwanted particles in the ink are also carried away, improving reliability even in the harshest industrial environments.

TF Technology is a key building block in Xaar's ImageX bulk platform.

Xaar recently released data on a new series of laboratory tests (in a white paper titled 'What goes around, comes around') which compares Xaar's TF ink recirculation with alternative ink recirculation techniques.

### "Xaar's new technology platform eliminates the need for extended drying time on aqueous inks"

applications with the ability to lay down a much wider range of fluids, offering advantages such as an increased color gamut, opacity and special effects,' explains John Mills.

Mills is particularly excited about the possibilities of inkjet high build coating. 'High-build varnish embellishments can be made in a single pass to add texture, visual impact, and functionality to labels and packaging. From braille and tactile warning triangles required on packaging to the latest 3D effects that ensure real shelf presence and bring images to life, digital print can avoid the complexity of traditional screen printing, adding features quickly and costeffectively to traditional printed items.'

Mills says the Xaar 2002 can achieve thicknesses of 130 micron at around half a meter per second or 80 micron at one meter per second. 'By using two printheads in a print and cure array, it is therefore possible to build much taller features and enables features such as braille and warning triangles to be added to labels and packaging in a single pass.'

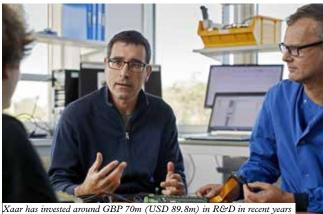
Another trend is the replacement of a first down UV flexo or UV screen white with inkjet.

'Xaar's printheads can easily handle highly pigmented inks which makes them ideal for many label applications,' says Mills. 'Xaar's digital inkjet can match analogue with high opacity whites printed in one pass, which avoids the need for slow and complex screen printing.'

Mills points out that the Canon Océ Labelstream press was already achieving impressive high opacity whites using Xaar 2001+ printheads. 'This enables it to deliver an impressive 80 percent opacity Alpine White at speeds of 48m/min in its Graphics mode, and a 67 percent opacity, or "true white", in a faster Production mode at 68m/min. In future this will grow even further with Xaar's new ImagineX bulk printhead platform.'

Mills sees these capabilities as offering great potential for the future development of hybrid flexo-digital presses. 'The exceptional print capabilities and versatility of inkjet printheads are more and more providing customization capability and high-end features





into existing flexo presses, usually through the addition of an extra printbar.

'Digital printing adds an extra dimension to traditionally printed items, enabling brands to have the freedom to localize, personalize and customize their products. Individual messages, codes and further printed features can be included on flexo printed labels and packaging for extra appeal or the creation of online competitions, communicating and engaging with consumers as part of highly effective promotional campaigns.'

#### **Future trends**

Among the emerging applications for inkjet is direct to shape printing – L&L visited the first commercial installation of a Krones/ Xaar direct-to-glass decoration line at the Leuven ABInbev site printing beer bottles for niche marketing applications.

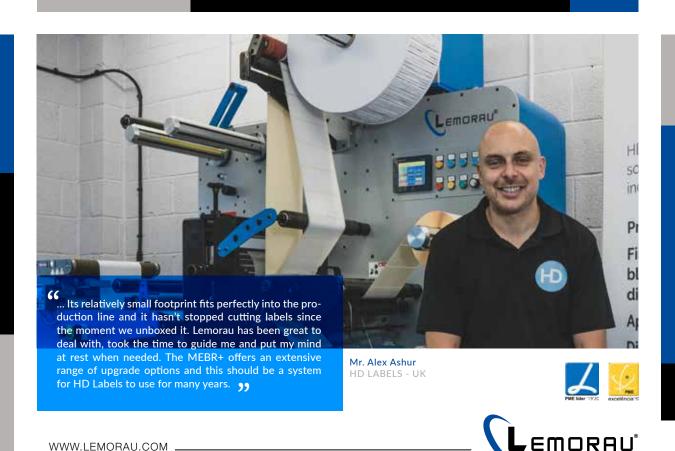
'We see continued and growing interest in direct to shape printing,' confirms John Mills. 'The reliability and performance of the Xaar 1003 printhead proved instrumental in the ground-breaking, direct-to-bottle printing operation for the Becks beer campaign last year. At this stage we are unable to go into detail on new projects, however inkjet and the possibilities enabled is being explored by a growing number of OEMs and user developer integrators.'

Another future-oriented application for inkjet is printed electronics, and Xaar's advanced manufacturing technology development team is very active in this area, Mills confirms.

'As a development area it is difficult to go into specifics, however printed antennae and circuitry through to hidden covert security markings and technologies are all active projects. The ability of our printheads to cope with a wide variety of fluids through our High Laydown and Ultra-High Viscosity capabilities are making Xaar the partner of choice for many.'



To read the Xaar white paper on ink recirculation technology go to shorturl.at/qrG45



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# Fresh soups and new beginnings

OKI's Pro1050 label printer has helped a Belgian social enterprise fight food waste. James Quirk reports

russels-based social enterprise enVie fights back against food waste by making delicious soups from fresh surplus vegetables supplied by Belgian farmers. Founded in 2018, enVie saved 50 tonnes of vegetables from becoming food waste in its first year. After two years, its goal is to save 100 tonnes of vegetables. enVie's soups are produced by a passionate team of people re-entering the workforce after long-term unemployment.

A young start-up, enVie is refining its workflows and identifying areas for operational efficiencies. One area that needed refining in terms of waste and cost savings was label printing. Each bottle of fresh soup requires an eye-catching label to communicate its quality and health benefits. enVie's existing process entailed ordering pre-printed labels from a local print shop and adding variable information, such as expiry date and batch number, using a thermal printer.

With quality an issue, and enVie struggling to manage the stock of printed labels which were supplied in many different layouts, the result was wasted funds in the form of unused labels in the stock room as well as disposing of printed labels that were no longer required.

In reaction to the Covid-19 pandemic, enVie, alongside various other organizations, launched the 'Robin Food' project to transform food surpluses into healthy foods that are made accessible to vulnerable people and families during the crisis. This created a greater and more urgent demand for labels.

#### Flexibility and quality

OKI's label converter partner Tasco invited the enVie team to its showroom for a demo of OKI's Pro1050 label printer. 'After seeing the demo we were convinced that a color label printer like OKI's Pro1050 could help us find the flexibility and quality we needed for our labels,' says Naomie Smith, general manager, enVie. 'Tasco was able to deliver OKI's Pro1050 to our production facility, prepare it to produce 20,000 labels, and train our operators to use it – all in just a couple of days.'

OKI's Pro1050 is designed to handle bespoke in-house label printing on demand. Using digital LED and dry toner technology it brings a new color dimension to label



# "The King of Belgium skyped with us to get to know our project"

printing, providing a fifth color or 'CMYK+1' option. The printer would enable enVie to perform short-run label printing on-demand from a single label to thousands a day. This enabled the correct volume of labels to be printed for each batch of soup, reducing the need to store or dispose of surplus labels. The minimal training required is an additional advantage: print jobs can be set up in minutes as each new team member is recruited following a period of long-term unemployment.

'From the first day OKI's Pro1050 was installed, we started printing our color labels. Our project started with 20,000 liters of soup and with the support of the public we collected funds to produce 70,000 liters. With our new printer we have complete flexibility to print colorful labels for both Robin Food and for our enVie soups,' says Smith.

enVie can now print its labels from scratch without having to order specific quantities from the local print shop that would eat up funds. enVie's members can simply select the relevant print file using NiceLabel software and print as many labels as they need.

Variable information, including expiry date and batch number, is generated automatically by the software and included on the printed label. This makes the process of applying labels quicker as the additional thermal printer is no longer needed.

Whether enVie's soups are moving

through its production facility, being transported or stocked by retailers, or used by consumers, the labels need to be robust. OKI's Pro1050 can produce labels that are resistant to water and UV fading, protecting the branding and important information such as use-by dates and ingredients.

The addition of OKI's Pro1050 has also enabled enVie to experiment with different label designs and layouts. 'As you start from a blank label and a minimum volume of one, any idea or request on design is possible, and in a very short time,' says Smith. 'As the printer can print 9 meters a minute, we can get the labels out very fast. Especially on the Covid-19 project, we saved a lot of time having the design ready and being able to start printing immediately. Normally we would have to send the design to the print shop, wait for the proof and wait again for the delivery of the printed labels.'

OKI's Pro1050 has been instrumental in helping enVie make a social impact with the 'Robin Food' project, which has achieved coverage in both local and national press. 'A couple of days ago, the King of Belgium skyped with us and our co-workers to get to know our project and to support us,' says Smith.

Guy Boxall, business development manager for narrow format printing at OKI Europe, said: 'The work that enVie does to help people in need is truly fantastic. We are delighted that OKI's Pro1050 label printer has helped enVie and the Robin Food project deliver a real social impact during these challenging times.'



Go to www.envieatelier.be for more information about enVie

# Growth strategies at Fortis Solutions Group

Since rebranding as Fortis Solutions Group in 2015, the US converter has been on an acquisition blitz while also growing organically. Chelsea McDougall reports

ohn Wynne hates the word 'corporate' as it doesn't speak to Fortis Solution Group's entrepreneurial, growthoriented spirit. It's still surprising to the Fortis Solutions Group president and CEO that the company grew from a single manufacturing plant just a decade ago, to a nationally focused company with 14 facilities across the US today.

Wynne first entered label manufacturing in 2010 with the acquisition of Labels Unlimited after a career in finance. The company made its first acquisition, A&M Label in Wixom, Michigan and Memphis, Tennessee, in 2014. In 2015, the company rebranded as Fortis Solutions Group and, with the backing of private equity firm Main Post Partners since 2017, has since pursued a high growth and an active acquisition strategy. Today, Fortis has an annual revenue in excess of 200m USD and employs 850 people.

From its headquarters in Virginia Beach, Virginia, Wynne is running a multi-facility company with multi-million-dollar resources but with the same competitive, customerfocused mentality he had when he entered the printing industry ten years ago.

'I don't see Fortis as this big company, or dots on a map with 14 facilities,' Wynne says. 'It's how those dots are connected that



### "We still believe that this business is a local and regional one, and we need to be in our client's backyard to best support their needs"

is important. At the end of the day, we want empowered people in each of those facilities leading the charge. I still want us to have that entrepreneurial spirit at our core."

He continues: 'I don't feel like we're one of the bigger companies. I feel like we're out there scratching and clawing and fighting every day. I never want to be considered a slow and stodgy big company.'

#### **Acquisition strategy**

Fortis frequently grabs headlines for its

#### Acquisitions at Fortis Solutions Group

Fortis Solutions Group is known for high-profile acquisitions. Deals include acquiring Label Technology, based in Merced, California, in 2019. Label Technology serves a wide range of industries including the food, natural products, nutraceutical, cosmetic and health and beauty end markets.

At the end of 2018, Fortis acquired Infinite Packaging Group with facilities in Lewisville, Texas and Catoosa, Oklahoma. Infinite serves clients in several consumer vertical markets including consumer products, retail, food and beverage, nutraceuticals and health and beauty. In addition, the company has developed a specialized line of products and options for e-commerce sales.

In 2018, Fortis also acquired Premier Georgia Printing and Labels, Austin Label Company and Lewis Label.

Premier, located in Flowery Branch, Georgia, produces labels, packaging and folding cartons, primarily serving customers across the southeast in the food market.

Austin Label, located in Austin, Texas, provides custom pressure-sensitive labels using flexographic and digital printing technologies to customers in the wine, spirits and food markets across the United States.

Lewis Label, located in Fort Worth, Texas, is a custom manufacturer of pressure-sensitive labels, shrink sleeves and flexible packaging products.

2017 brought Action Packaging Systems under the Fortis umbrella. With locations in Ellington, Connecticut and High Point, North Carolina, Action Packaging Systems provides pressuresensitive prime, promotional and thermal labels to customers across the country.

Some early acquisitions included Kopco Graphics, Color Craft Label and Farmland Print Plant. Kopco Graphics, is based in West Chester, Ohio. Color Craft Label, is based in Memphis, Tennessee, and Farmland in Independence, Missouri.

And of course, the first acquisition under what was then Labels Unlimited was A & M Label in Wixom, Michigan. Both companies became Fortis Solutions Group in 2015. (Fortis is Latin for

Fortis employs more than 850 people across 14 sites and intends to continue its pursuit of acquisitions to further the breadth of product offerings and locations which can serve its customer base.

high-profile acquisitions (see boxout). Since 2014, the company has acquired 11 companies, often taking over family-owned companies while keeping the same teams in place and focusing on being excellent stewards of the acquired businesses. Fortis focuses on acquisitions that can further expand the company in three core areas: geography, product and end-market diversification.

We still believe that this business is a local and regional one, and we need to be in our client's backyard to best support their needs,' Wynne says. 'When you look at the benefits that a multi-site platform can bring to bear for our customers with redundancy and the ability to scale their brands, it's compelling to look at acquisitions to accelerate their opportunity set.'

The company's most recent acquisition came with Orem, Utah-based Kala Packaging, an early adopter of HP Indigo 20000 and 6000 series digital presses and a dominant player in the short-run flexible packaging and label market. Kala not only adds to Fortis' portfolio of pressuresensitive labels and flexible packaging products, but it's just the type of acquisition Wynne finds attractive: one in which Fortis can grow and scale with its customers.

'We love the approach of being able to scale with these brands and businesses over time with from digital to our wider flexographic assets,' Wynne says.

On finding synergy between the 14 facilities Wynne, simply put, doesn't reinvent the wheel. Local talent is maintained, and oftentimes the former owners of the companies stay on.

### "I don't see Fortis as this big company, or dots on a map with 14 facilities. It's how those dots are connected that is important"

'With any acquisition, you need time to understand who does what, the culture, and the systems and processes that are in place. As our head of sales always likes to say: "No one has a monopoly on good ideas."'

#### **Greenfield operations**

Not all growth at Fortis is happening through acquisition, however.

'People see the headlines about our acquisitions, but the reality is, we've got 30-plus business development people that are working their tails off every day to stimulate organic growth,' says Wynne.



Fortis Solutions Group had one facility a decade ago; now its operations are spread throughout the United States



In 2019, the company started a greenfield operation in Napa Valley that caters to the wine and spirits industries. Fortis brought on label industry veterans Brendan Kinzie as president for wine and spirits and James Stone as a director. Both have a long history in both printing and wine.

The company also invested in top-ofthe-line printing equipment with an HP Indigo digital press and a Gallus RCS 430 to further expand its ability to execute intricate wine and spirits label designs.

'If we're going to be in it, we were going to be in it in earnest,' Wynne says. 'We've certainly invested in that business and feel great about the momentum that exists.'

Fortis hit pause on its acquisition pursuits as the pandemic took hold in early 2020, taking time instead to focus on its current business offerings that center on five core products: pressure-sensitive labels, flexible packaging, shrink sleeves, folding cartons and label applicators.

'We're not all things to all people. Frankly, if we're in it, we're going to be really good at, we going to excel at it,' Wynne says. 'We're not going to be able to do everything that's out there, nor do we want to. We're going to stay focused, stay in our lane, and not stray from that. We'll continue to invest in those five areas and stay true to that. I don't see us expanding past our core offerings.'

Fortis primarily serves the food, nutraceutical, health and beauty, household chemical, automotive, retail and e-commerce industries.

'There's nothing like a pandemic to focus you on where you're playing to win,' he says. 'It made us think about the future of our economy and what markets are going to increase, what markets are going down, and where we need to position ourselves. In our case, it's nice to be diversified in that regard.'

'Food is our foundation and when times are tough, people really hunker down and they go to the grocery store, and that's where you can find our labels,' he continues. 'You have to have that foundation, but also other growth markets that allow you to outperform over time.

'Going into 2021, we remain focused on keeping our employees safe and our One Fortis culture strong while continuing to outperform the needs of our customers. We have tremendous momentum in the business and are excited to see how the year unfolds."



For a video interview with John Wynne, visit www.labelsandlabeling.com/video



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# Five reasons to select synthetic paper

Fabrizio Mandingorra, PPG global segment manager, Labels and Graphics for Teslin substrate products, on the advantages of synthetic paper

o you have an application that requires a label that is waterproof, scuff-resistant and tough enough to withstand excessive handling? Or maybe you need it to be secure, or have some specific functionality? There are a number of factors and functional needs where the total range of benefits of synthetic label paper outperforms standard pulp paper. Here are the top five reasons to select a synthetic paper label.

1. Water resistance. If your application needs to resist water and other types of moisture (condensation, steam), a synthetic paper is the right solution. Synthetic paper is an excellent option for labels that need to withstand damp environments, from wine bottles in ice baths to signage in coolers and freezers to chemical drums located in outdoor storage areas. In fact, if your application requires BS 5609 certification, synthetic paper is even more important. BS 5609-certified labels are proven to meet the most stringent tests for durability and are suitable for use in harsh environmental conditions. To obtain BS 5609 certification, printed labels need to withstand a three-month salt water submersion test in the English Channel.

2. Tamper-evident and tamper-resistant security. Counterfeit products - that is, any goods or packaging that bear a trademark that is virtually the same as the one registered to an authorized trademark owner – are one of the most significant global threats to brands and those who hold intellectual property rights to them. They also pose significant risks to public health and safety, and the economy.

For some brand owners, one of the most important considerations for choosing synthetic labelstock is the level of security performance it offers. Consider synthetic paper if you need to improve the security of a product that requires a visual deterrent against and/or evidence of alteration or theft. In addition to exceptional bond strength, many synthetic papers are tear-resistant, others offer void technology options. A synthetic paper can be embedded with program-specific security features that are great for track and trace applications. And many synthetics don't require added printing, converting and cost to ensure tamper evidence.

3. Sterilization. Synthetic paper is also a good choice for pharmaceutical and medical applications needing sterilization (and tamper-evident protection). Blood bags and tubes or vials requiring tight mandrel performance are also excellent candidates for synthetic paper. Check with your substrate provider to ensure that their synthetic paper can pass gamma, ethylene oxide (EtO) and beta ray sterilization, as well as steam sterilization at 125 deg F





### "For some brand owners, an important consideration for choosing synthetic labelstock is its level of security performance"

(52 deg C) for 20 minutes and cryofreeze applications reaching -160 deg F (-107 deg C).

4. Chemical resistance. When selecting labels for chemical packaging and heavy-duty industrial applications, certain synthetic papers offer resistance to chemicals and solvents, even at elevated temperatures. Synthetic paper is an excellent solution when you need to achieve GHS-compliance or simply to produce a durable label that stands up to harsh shipping and environmental conditions. A synthetic paper can impede static build-up during digital printing to reduce clumping and stacking, leading to increased productivity. Workplace safety is also enhanced as the material absorbs and dissipates static build-up in hazardous environments to reduce risks associated with electrical discharge and arc-flash related fires.

5. RFID and smart functionality. As brand owners are adding functionality and embedded electronics into labels for capabilities like brand authentication, synthetic paper is becoming an ideal solution for RFID labels. Select a synthetic paper that provides cushioning and dissipates static to protect passive and active RFID tags, thus extending the life cycle and read range of RFID labels.

When evaluating synthetic paper for your next 'tough' application, ensure that it is compatible with a wide range of flexo or offset print processes as well as digital technologies, including laser, thermal transfer and inkjet for on-demand and variable data printing. Depending on the technology you use, some synthetics require pretreatment coatings, special inks and drying equipment.

So, the next time you have an application that requires durability, security, sterilization, chemical resistance or RFID functionality, evaluate the many advantages of synthetic paper.



Go to teslin.com/why-synthetic for more information





# Pinnacle Traxim forays into digital

The Indian converter chooses Konica Minolta AccurioLabel 230 press to diversify into digital label printing. Aakriti Agarwal reports

onepat-based label converter Pinnacle Traxim has diversified into digital label printing with a new Konica Minolta AccurioLabel 230 press. 'The demand for pressure-sensitive labels has been growing rapidly since Covid,' explains Sandeep Juneja, owner at Pinnacle Traxim. 'We saw it as a good time to tap the opportunity and grow with the market. Thus the decision to invest in a digital press. We have been closely following Konica Minolta's performance since the launch of the AccurioLabel press in India. It meets our requirements for short run jobs. We are confident in meeting our customers' expectations with this press.'

Prior to the installation of the Konica Minolta AccurioLabel 230, Pinnacle Traxim was mostly producing label jobs received from brands and other channels. Now, the company is focusing on reaching out to the brands and design companies in the local market to support their short run label requirements.

Pinnacle Traxim started operations in 2008 with an 8-color Nilpeter 330 press followed by an 8-color Bobst M1 in 2016 and, finally, the Konica Minolta AccurioLabel digital press in 2020. With its existing capabilities, Pinnacle Traxim mainly caters to the chemical, cosmetics, liquor and pharmaceutical markets.

Since the lockdown, the pharmaceutical, cosmetics, food, alcohol and chemical segments have emerged strongly. 'We could be a part of growing market demand because we ran our operations smoothly without shutting our plant for even a single day, as label production falls under essential services category declared by the Indian government,' says Juneja.

'Customer demands have shifted from long run jobs to short run jobs. Many new digital label applications have emerged like track and trace, brand protection, loyalty programs and variable data printing. Konica Minolta enabled us to meet the growing demand of our customers. New start-up companies are growing very fast and require multiple SKUs with high turnaround in production requirements. The Konica Minolta press fits beautifully to cater to new demand in the market. We printed 30,000 linear meters last month on this press.'

Konica Minolta has a team of business development support staff, who aid its customers by introducing them to various brands. Konica Minolta also consults with brands to demonstrate the value of their press to end users.

Pinnacle Traxim is evaluating increased automation due to rising demand for short runs, so as to reduce printing and post-printing time with support from Konica Minolta. 'To support our digital label printing venture, we have created another division in the company to solely cater to digital label production, sales and marketing demands. With continued focus and dedication, our digital label printing division is expected to break even within a year of installing the new Konica Minolta press,' says Juneja.

As a result of the continued increase in label demand, the company's flexo division is growing at 20 percent a year. Therefore, Pinnacle Traxim is further investing in another flexo press and looking to strengthen its foothold in the growing liquor market. The press is expected to be installed by May 2021.



For more news from the Indian market, follow Aakriti Agarwal on LinkedIn



### "Our digital label division is expected to break even within a year of installing the Konica Minolta press"

# Konica Minolta predicts toner-based digital

With seven digital presses installed in India, Konica Minolta sees positive momentum for its label equipment. Tai Nizawa, managing director, Konica Minolta Business Solutions India, says: 'In the past two years, we have witnessed increased interest and optimism for digital printing among label converters. Konica Minolta will continue to launch new products to help customers cater to all requirements of their customers. Labels and packaging is our focus area where the opportunity to digitize is very high and most printers struggle to cater to short runs.'

The ongoing pandemic has further increased the market for digital label printing, according to Nizawa. 'Customers who were sitting on the fence in regard to upgrading their technology have started to approach Konica Minolta to understand the transition. Less dependency on labor force and more automation to streamline production has become need of the hour. Short runs with digital content and fast turnaround is a requirement from end users. Hence, digital printing is no longer just an option, but has become necessity at label production sites. We believe that in the long term more digital presses will be installed in the country in comparison to analog presses, since customers are looking for quick turnaround and short-run presses."

According to Nizawa, Konica Minolta is witnessing demand from label converters located in hubs such as the outskirts of Mumbai, Ahmedabad, Vapi, Noida, Baddi, Hyderabad and the north-eastern territories. 'Large and mid-sized label converters will opt for digital in the short term and smaller label converters will follow them in the longer term,' he predicts.











# Chiripal Poly Films expands

The BOPP film manufacturer is expanding with a new plant in southern India. Aakriti Agarwal reports





hmedabad-based Chiripal Poly Films has expanded operations to south India with a new manufacturing facility in Hyderabad. Spread across an area of 30 acres, the new plant will be equipped with a state-of-the-art 10.4m BOPP line from Germany, expected to be installed in April 2021, and an 8.7m BOPET line to be installed in March 2022.

'These two lines will have combined production capacity of 100,000 tons per annum,' says Sumant Singhal, CEO at Chiripal Poly Films. 'The new plant will also house three metallizers ranging from 2.85m to 3.65m web width and production capacity of 35,000 tons per annum."

The company's headquarters in Ahmedabad already runs two BOPP lines, one BOPET line, four metallizers and one off-line coater. With this expansion, the combined production capacity at both plants will reach 218,000 tons per annum.

Elaborating on this investment and choice of new location, Singhal says: 'Given the geographical location of the new plant, and considering there are no film lines in south India, our objective is to tap potential markets in southern and eastern India

#### Wraparound film market

Chiripal Poly Films supplies transparent and white wraparound films. This segment has been growing consistently in India. According to the company, the current demand of wraparound films in India stands at approximately 1,000 tons per month.

Chiripal Poly Films claims to supply around 300 tons per month of wraparound films along with other types of labeling products such as in-mold labels and pressure-sensitive labels.

### "Current demand for wraparound films in India stands at approximately 1,000 tons per month"

and increase our presence in the country. And we want to increase our specialty films portfolio targeting not only exports to western Europe, and North and South America, but also the domestic market.'

Considering the 10.4m width of the new BOPP line, the company intends to orient the production to thicker films. 'The line will be capable of producing 10 to 70 micron BOPP films. Further, it will have a flame treatment facility which will allow us to guarantee retention of dyne level for longer period which would help us serve our customers efficiently,' explains Singhal.

Chiripal Poly Films has tried to carve a niche by offering customized products to its clients in recent years, alongside manufacturing standard products. Singhal says: 'It is a very thorough process. It takes a lot of effort to understand the customer requirements in terms of the end application, the processes it would pass through, the printing inks, methods, machinery, among other factors. Once it is understood, with the help of our experts, we offer the product which would best suit the needs of our customers. So far. this strategy has worked effectively for us and with new capacities and facilities we would be in an even stronger position to serve our customers and provide them with customizable products.'

#### Market trends

Chiripal Poly Films observes that the pandemic has had an impact on consumer behavior which has resulted in more sustainable products. 'In our industry, the pandemic has certainly impacted the price and availability of raw material which has resulted in keeping excessive stocks due to prevailing uncertainty. Excessive increase in freight cost due to limited availability of containers with shipping lines has also triggered the prices,' says Singhal.

'As far as coating technologies are concerned, the market is shifting towards linerless, mono-layer labels and alox coated material. This coating segment is also becoming more environmentally friendly by focusing on water-based adhesives instead of solvent-based. In line with sustainability, there is a shift in the Indian market from PVC to PET-G.

'During the pandemic, beverage consumption decreased significantly. Regarding the final applications of wraparound films, the demand for carbonated and overall beverages decreased and bottled cooking oil remained stable.'

For the consumer, the pandemic has accelerated the digitalization wave, boosting e-commerce, and increased health awareness. 'From March to May 2020, during the first peak of the pandemic, we saw panic buying make a seasonal increment on the demand of packaged food and personal care products. Moreover, it was a year of identification and realization, in the sense that people learned to identify real needs and prioritized healthcare and wellness over other luxury segments. While household cleaners and soaps, health vitamins hair color and coffee became popular choices for consumers, products like sun cream and cosmetics saw a double-digit decline,' concludes Singhal.



For more from Aakriti Agarwal on the Indian market, go to www.labelsandlabeling.com/ contributors/aakriti-agarwal

# Avery Dennison expands in India

With new investment of 34 million USD, Avery Dennison is expanding its operations in the Indian market. Aakriti Agarwal reports



ith a new investment of USD 34 million, Avery Dennison is setting up a state-of-the-art manufacturing plant in Greater Noida, Uttar Pradesh (UP) as part of its strategy to achieve sustainable business growth and serve its key markets more efficiently. With this latest cash injection, Avery Dennison has now invested more than USD 136 million overall in India.

The new facility will enable the manufacturing of new innovative products, improved quality and faster service to customers, according to Pankaj Bhardwaj, vice president and general manager, Avery Dennison India. 'We are delighted to announce a new manufacturing plant in Uttar Pradesh, a key part of our overall strategy to keep expanding the market and enhancing our ability to better serve our customers,' he says. 'This expansion also reaffirms our commitment towards our stakeholders and in developing state-of-the-art products and services while embracing innovation and future technologies. This step also further strengthens our belief in the potential India holds and towards our people to grow the business sustainably.'

According to Mahesh Pathak, senior operations director, SAPSSA, Avery Dennison Labels & Packaging Materials, the plant will be 'extremely energy efficient in line with our 2025 goals'.

'We are putting efforts towards building a green infrastructure and a smart factory

### "There is no doubt that India holds immense potential for us to further grow our business"

that will include an energy management system, a RFID-linked inventory management system, and a plethora of new technologies and best practices built in,' he continues. 'Finishing equipment will have a high level of automation and link with Industry 4.0, including robotics. The plant will also house the fastest coater in the region.'

Bhardwaj adds: 'We are committed to making India a very competitive production unit and have a compelling proposition for exports. We are already exporting to ASEAN, Africa, Australia and New Zealand. We can proudly say we manufacture in India almost 95 percent of products sold in the local label industry, and this will rise further thanks to the new plant. This investment will help the local industry become more self-sufficient.'

Spread over 12 acres and located in the Yamuna Expressway Industrial Development Authority (YEIDA), the built-up area will be more than 100,000 sq ft. Equipped with a state-of-the-art coating and lamination line, the new plant will produce technicallyadvanced pressure-sensitive materials for labeling and packaging.

Anil Sharma, vice president and general manager, LGM, Avery Dennison APAC, said: 'India is one of our key markets in

the Asia Pacific region. There is no doubt that it holds immense potential for us to further grow our business and cater to customer needs. This investment is proof of our confidence in this region and of its importance to our global business strategy. The new facility will enhance Avery Dennison's capability to grow the market for labels and packaging materials in India in close collaboration with our customers.'

#### Market trends

According to Bhardwaj, the pandemic has accelerated some existing trends and also created new ones. 'Accelerations include anything connected to health and hygiene. These sectors remain promising. New categories in food and in-home consumption are growing. The alcohol segment is being impacted because the hospitality sector is not doing well.

'There have been strong changes in some market segments. Modern retail has not performed well, but "mom and pop" companies are doing extremely well. They seem to have quickly adapted to new technology and have been serving customers efficiently. Previously, we never saw kirana stores accepting orders on WhatsApp, but that fundamentally changed during this period. E-commerce has strongly



accelerated, especially in categories where it was not so dominant, such as groceries. We actually expected it to happen in five years, but the pandemic made it a reality in six months.

'Home consumption-related appliances and automotive segments have also done well. The apparel market is rebounding too. We expected it to remain affected for a long time because it is discretionary spending, but the recovery growth in this segment has surprised us.

'In fact, rural consumption has gone up too, primarily because agriculture has done phenomenally well. Additionally, rural areas have shown great resilience against the pandemic.'

Another segment that exceeded expectation was smart labels. According to Bhardwaj, sales of smart labels went up by five or six times in 2020 compared to 2019. 'Converters who started early and understood the market as well as the technology could scale up effectively during this time,' he says. 'But those who did not have the knowledge are enquiring now. They are realizing the importance of efficient management of materials and the value that RFID brings to the table. The number of serious enquiries has gone up. I think it has been a tipping point for people realizing the importance of RFID as a technology.'

#### Presence in India

Avery Dennison opened its first Indian plant in Gurgaon in 1997, equipped with a hotmelt coating line. The second site was built in Pune 10 years later. Since then, the company has expanded its operations across India in cities including Pune, Gurgaon, Bangalore and Kolkata. The company's I.Lab intelligent label innovation space in Pune was its third globally and the first in the Asia-Pacific region.



Mahesh Pathak, senior operations director, SAPSSA, Avery Dennison Labels & Packaging Materials

Avery Dennison has also seen more customers enquiring about products with recycled content. 'There is a latent consumer expectation that companies are going to behave in a sustainable fashion as far as packaging is concerned,' says Bhardwaj. 'This is well recognized. I won't say that Covid has helped much in that direction because the use of single-use plastics has only gone up, but the need to find a more sustainable solution is there. The need is getting stronger by the day.'

In response to this demand, Avery Dennison has launched a series of sustainable products during the pandemic. These products are either thinner or have recycled content or are responsibly sourced. 'Our sales of these products have been much better than in 2019. There is a clear and gradual shift in the portfolio towards more sustainable products. We believe it is just the beginning of a long journey,' says Bhardwaj.

Avery Dennison continues to work with brand owners to offer sustainable label products. 'We are working with them to enable better recycling. We are trying to find ways to connect with more brand owners and finding ways to recycle or down cycle, while constantly promoting the message of recycling and ensuring they are a part of the sustainability discussion,' says Bhardwaj.

Avery Dennison India has partnered with more than 20 brand owners and converters for its liner and matrix recycling programs. 'We are, however, not fulfilling our aspirations,' he continues. 'We recycled more than 200 metric tons in 2020 which is more than we did in 2019, but we could have done more. Covid did not help because the logistics were significantly impacted. We are now refreshing this program to make it more compelling and easier to use for converters and end users. The program needs industry promotion, adoption, and continuous discussions. We hope to increase recycling volume multi-fold.'

"The apparel market is rebounding. We expected it to remain affected because it is discretionary spending, but the recovery growth has surprised us"

Bhardwaj says that one of the biggest concerns in the Indian market is the penetration of flexible packaging in the ecosystem. 'We, as a country, use humongous amounts of flexible packaging which are not being recycled on a large scale. Segments like dairy are not using flexible packaging in most parts of the world. But for us, almost all milk is packaged in flexibles. Although, refill packs have been selling more compared to previously."

#### Pandemic impact

Turning to the overall health of the industry, Bhardwaj says that many Indian converters were seemingly not in the best financial situation even before the pandemic. So it was not a surprise to see some pushed to the brink. However, Indian entrepreneurs' resilience is underestimated, he believes: 'The way small converters managed was marvelous. We have thankfully not seen casualties and people are coming back on track. A lot of them have returned to pre-Covid volumes. In general, the industry has managed its financial health very well. A lot of people used this time to look at their businesses and understand their strengths and weaknesses.'

'Nonetheless, it is true that the industry has a lot more to do,' he concludes. 'The transition has to happen from us being a very commoditized label industry, to becoming a functional value-added label industry. And that option is being offered to converters by brand owners because the consumer is asking for functional and value-added products. We are at the cusp of that transition of improving the industry and its attractiveness. If the industry continues to hold the right financial prudence, we will only become stronger.'



For more trends from the Indian market, read www.labelsandlabeling.com/ opinion/2020-review-india



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# Successful launch of Labelexpo South China

The inaugural edition in Shenzhen hosted nearly 9,000 visitors. Yolanda Wang reports

abelexpo Global Series has reported the successful inaugural edition of Labelexpo South China in Shenzhen, with a total of 8,778 visitors passing through its doors between December

Taking place at one of the largest purpose-built event spaces in the world, Shenzhen World Exhibition and Convention Center, and occupying 11,000 sqm of floor space, the show offered a platform for 130 exhibitors to showcase the latest label and package printing machinery, smart technology, materials and components. Chinese exhibitors included Fangda Packaging, HanGlobal, Shenzhen Caisheng Printing Machinery, Soonmax, Hongsheng, Pulisi, Reborn, Runtianzhi and Shanghai Haixi. Overseas exhibitors included 3M China, BST Eltromat, Epson, Konica Minolta and Ritrama, with confirmed sales including HP and Luster equipment.

Technology launches for the region included Durst's Tau 330RSC, the new generation of HP Indigo's 6K and 25K digital presses, as well as Konica Minolta's MK 360R cutting machine. Luster's LabelMan-2020 T saw its world debut.

Other equipment on show included Shenzhen Huada Huahui Machinery's DJKDM full rotary offset printer, Shenzhen Reborn Precision Machinery's die-cutting and hot stamping machinery, Guangzhou Pulisi Technology's inspection machines, Guangdong Qianrun Machinery's letterpress and sticker printing machines, and Shenzhen Caisheng Printing Machinery's letterpress systems.

#### Positive feedback

Kevin Liu, event director for Labelexpo South China 2020, said: 'We are delighted with the success of our first Labelexpo show in Shenzhen, the region's key printing and technology hub. With a fantastic footfall of almost 8,800 visitors, a rebook rate of 35 percent, and extremely positive feedback from exhibitors and event partners alike, the show is resounding proof that it's possible to launch and run a successful, high-quality event safely in these challenging times.'

The main show feature, the Print Automation 4.0 Hub, offered live demonstrations of the label production process. Beijing Value Technology and Luster displayed the SmartFAB printing factory's management process, while Hybrid Software demonstrated rapid electronic proofing. Rhyguan showcased its Plus-330 digital converting and finishing machine, while Luster also displayed the LabelMaster-F off-line label quality inspection system.

Show visitors also attended Label Academy educational programs tackling the industry's hottest topics. The Shrink Sleeve Technology workshop included design and origination requirements, shrinkable films, different printing processes, technologies, specialized applications, sleeve performance, quality, and troubleshooting. The speaker line-up included Simon Wang, sales and service manager of Hybrid Software in Greater China, Jerry Xu, sales director for Asia at Klöckner Pentaplast, Will Jiang, technology manager at Flint Group, and Dawei You, product manager at Luster.

The Digital Label and Package Printing Masterclass featured a comparison of the different technologies, inkjet technology in digital label printing, pre-press systems, strategies and workflow automation, substrate selection, and digital print finishing. Speakers included Sheldon Wang, account manager at HP China, Zhigang



# "The show is resounding proof that it's possible to launch and run a successful, high-quality event safely in these challenging times"

Ding, supervisor of label division at Konica Minolta, Jimmy Zhan, sales director for China at Domino, Danny Hu, regional director of China at Meteor Inkjet, Qiang Wu, software sales support at Esko, Steve Deng, China sales manager at Cerm, Calvin Xu, product solutions manager at Avery Dennison, and Ramon Li, general manager of Brotech.

Eve Cai, marketing manager of HP Indigo Greater China, said: 'Under the severe situation of Covid-19, it is not easy for Labelexpo South China 2020 to be held successfully as scheduled. We see the digitization process of the label industry has accelerated under the new normal, and those ideals proposed by HP Indigo more than ten years ago are slowly unfolding themselves. The very first Indigo 6K digital printing machine in China was signed up on-site.'

'As the sister show of Labelexpo Asia, Labelexpo South China is the only show in the label industry after the epidemic, and received undiminished enthusiasm from the industry professionals,' added Yan Jianhai, general manager at Shanghai Haoxi Technology. 'Each and every visitor to our booth showed great interest in the Durst Tau 330 RSC digital label printing machine. The show has given us a valuable opportunity to deepen our communication with the label printers in South China. We expect to achieve more at Labelexpo Asia 2021.'

'Trade shows are vital for economic growth, so it's incredibly encouraging to see the region flourishing. Labelexpo South China is an important part of that jigsaw, and, crucially, will act as a vital catalyst for the recovery of the label and package printing industry in the region into 2021 and beyond,' concluded Liu.



Labelexpo Asia 2021 takes place in Shanghai on December 7-10. www.labelexpo-asia.com



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# Tengcai benefits from RFID and Industry 4.0 focus

Chinese OEM enterprise Tengcai Technology is seeking to integrate RFID label production with conventional and digital print processes. Julia Du reports

uangdong Tengcai Technology, a high-tech enterprise established in 2011 and located in Foshan City, is one of the label producers designated by the Guangdong Provincial Government for the production of epidemic prevention and control labels for a wide range of Covid-19 related applications.

Its core business is the design and converting of self-adhesive labels and RFID tags. At present, the company focuses mainly on the south China market, where most of its customers are self-adhesive label users. Its products cover many industries, including food, household chemicals, wine and medicine.

Tengcai Technology has invested in a wide range of printing processes for the production of self-adhesive labels. In its factory are seven advanced 5-12 color rotary presses, together with more than 20 automatic quality inspection machines, high-speed flat die-cutting machines, UV inkjet printers and engraving machines, along with other auxiliary label printing equipment. This forms a powerful printing fleet capable of providing professional services to its peers in the label industry.

Recently, Tengcai Technology installed two Hongsheng HSR-series flexo presses (10-color and 12-color), and one SPGPrints rotary screen printing station. According to Hanwen Peng, CEO of Tengcai Technology, the selection of the Hongsheng flexo press was driven by its 'advanced technology, stability and printing quality after comprehensive comparison with the competition'.

The HSR series of narrow flexo printing presses employs the latest Baumüller servo technology to ensure the stability of web tension and overprinting, and the speed can reach up to 200m/min. Moreover, it can adapt to a wide range of applications, including paper and film printing, laminating, cold stamping, die-cutting, and through cutting.

## "With Industry 4.0 now such a popular topic, RFID is seen as a key technology for implementing intelligent manufacturing"

In order to complete its offering, Tengcai Technology plans to add an inkjet press to explore new market opportunities, and at the same time, supplement the company's existing conventional printing machinery.

The company covers an area of about 10,000 square meters, with 4,000 square meters of cleanroom workspace and modern factory facilities. Tengcai has achieved ISO 9001:2015 certification and ISO 14001:2015 Environmental Management Certification.

#### RFID upgrading and development

With Industry 4.0 now such a popular topic, RFID is seen as a key technology for implementing intelligent manufacturing, playing a role in controlling the supply chain, track and trace, anticounterfeiting, and thus improving the efficiency and service level of intelligent enterprise management.

In 2019, the RFID department was established with the installation



of Mühlbauer's DDA 40000 system, along with an RFID laminating machine and a Voyantic Tagsurance RFID inspection system.

Tengcai Technology understands that competition in the market is actually the competition for talent, and for that reason, has implemented a comprehensive training plan for its key talent with the motto 'Respect for the individual'. Tengcai has a young team which includes a wide range of disciplines from industry application experts to advanced equipment operators and technicians and highly trained customer service staff.

Having a diverse range of talent is key to integrating offset, flexo, silkscreen and digital printing under the same roof, allowing different order lengths with product complexity to be processed efficiently.

Tengcai Technology also recognizes its obligations to wider society and its mission statement includes implementing key metrics for sustainable economic, environmental and social growth. The company believes that taking the road of environmental protection is a win-win and key to the long-term prosperity of the label industry. Its achievement of ISO 14001:2015 Environmental Management Certification has involved putting energy conservation and environmental protection at the forefront of its daily practice. It regularly carries out environmental impact assessments for each construction project, obtains the correct pollution discharge licenses, and signs the relevant Hazardous Waste Recovery Service agreement and the General Industrial Solid Waste Collection and Disposal agreements.

The Covid-19 pandemic has had little impact on Tengcai Technology, according to CEO Hanwen Peng. Instead, as noted it, has been designated one of the producers of key label materials for epidemic prevention and control by the Guangdong Provincial Government, delivering these applications across a wide range of end uses.



A Label Academy virtual master class on brand protection, held on March 23 and 30, will cover RFID technology. See www.labelsandlabeling.com/label-academy

# Etirama expands global footprint with new press

L&L MENA editor Akanksha Meena reports on the Brazilian press manufacturer's global expansion plans

tirama, the Brazil-based manufacturer of narrow web flexo presses, unveiled its new SPS2 flexo press in January 2021. The company has already sold ten units of the new machine in Latin America and the Middle East before its official launch, with the latter considered a market of high potential for the press.

According to the company, the new model is the result of intense technological development since August 2019. The press was built using the Be Easy platform developed by Etirama to standardize internal processes and implement a lean manufacturing system.

The Etirama SPS2 press is built around a shaftless transmission system using Schneider servo motors, with servo-driven synchronized infeed and outfeed. The press has options for manual or electronic printing register adjustment with an HMI touch screen panel. A quick change anilox and pre-positioning on the plate cylinder help reduce makeready times, along with a powered integrated roll lift.

The press offers cold stamping, silkscreen printing and lamination capabilities and runs at the maximum speed of 150m/min.

Ronnie Schroter, CEO of Etirama, says a key strength of the press is its price point. 'It is approximately half the price of its European competitors, which means that customers can have a high-tech product with very high performance, and most importantly, earning money with a quick return on investment.'

The manufacturer reports that owing to the high expectations generated by the press, the market reacted earlier than expected. The company bagged ten sales orders of the press from the Middle East and Latin America while the machine was still being manufactured.

Etirama claims to own 38 percent of the flexo label press market in Latin America and is now focused on broadening its global reach. The company appointed a new commercial agent for the Middle East region, Afra International, in 2020. A new Etirama unit has been set up in Barcelona, Spain, complete with showroom, sales and after-sales services.

Originally, the SPS2 press was due to be launched at Labelexpo Americas in September 2020. But with the spread of Covid-19, the company had to postpone the launch. The time gained during the pandemic was used to improve the press further and add cost reduction features, says Schroter.

'Unfortunately, the Covid-19 pandemic hindered our plans and we had some delays, especially due to the difficulty in visiting new markets and strengthening our presence in some countries through exhibitions and events.' He adds that the new machine was supposed to be installed at Afra's showroom in 2020 but is now delayed till the first half of 2021.

With the pandemic restricting movement across the globe, the after-sales services of the company were restructured to include online remote support. The Superprint flexo label press, the predecessor of the SPS2, has more than 200 installations across the globe.

#### Middle East and Africa

Schroter says that the Middle East and Africa (MEA) region is 'very important' for the company and that there are several potential customers for Etirama machines in the region.



#### MEA commercial print industry looks to labels

According to Vinay Krishnan, director of Afra International, the biggest issue in the MEA label industry is that label converters are not able to get return on their investments.

They are failing terribly because of the huge investments that are burning a hole in their pocket. The reason is that they bought high-value equipment and the label market is going through a tough time.'

Krishnan explains that the print industry in MEA has been going through a rough time for the last four years. Commercial, promotional and retail printing used to be among the profitable print segments but have been declining.

'Print service providers on the commercial side of the business were making good money. That is slowly declining. They are now moving to flexo and packaging segments. There is a huge issue with margins and there is a big price war in the commercial print market.

The pandemic added to the misery of the already declining promotional and retail printing market. Dubai, being largely a tourist destination, was affected more than Saudi Arabia because 'Saudi has its population to provide for', says Krishnan.

Commercial print businesses are now diversifying into the label and packaging market, according to Krishnan. 'Labels and packaging are good segments for diversification. A lot of commercial printers are ready to diversify. We are providing them with affordable finishing and converting equipment to solve their problems and safeguard their business."

Afra manufactures converting equipment including die-cutters, folder-gluers and laminators at its facility in China. 'Our strength is that we can turn commercial print businesses into packaging providers at affordable costs.'

He concludes by saying that the MEA print industry is at a crossroads and the Etirama SPS2 flexo press is the right machine for the market. 'There is a demand for labels and the market cannot afford expensive equipment. The SPS2 press does not compromise on makeready time while being affordable.'



Etirama's new SPS2 flexo press

### "Etirama has already sold ten units of the new press in Latin America and the Middle Fast before its official launch"

The company's newly appointed MEA partner, Afra International, was established in 1995 and currently has more than 11,000 installations of printing, finishing and packaging equipment throughout the Middle East and east and west Africa. Headquartered in Dubai, the company expanded its business to East Africa, Saudi Arabia, Nigeria, Ghana and the Ivory Coast from 2008 onwards. The company is also a distributor for UK press manufacturer Edale in the region.

Afra began with a focus on commercial offset printing but has been eyeing the label industry since 2015. The company has been supplying flexo presses since 2003 but the applications were limited to printing on paper and board. In 2015, Afra constituted its Flexo Printpack division – a dedicated arm for narrow web, label and flexible packaging products.

'Since 2019, we have been looking for good manufacturers of narrow web machines,' says Vinay Krishnan, director of Afra International. 'We found Etirama and they were also transforming at the time. I visited their plant in Brazil at the beginning of 2020 and saw their plans and the Afra team was convinced of the strength and capability of Etirama's machines and the company's integrity. We were very keen on their Be Easy platform and the SPS2 flexo press. The servo-driven press is very affordable and does not compromise on print quality and technology.

According to Krishnan, Etirama has a good understanding of the label industry and is agile with the requirements of its customers. Afra's current focus is Etirama's narrow web press for thin substrates. The company provides Edale presses for printing on substrates of thicknesses greater than 600 micron.

'The press will be installed in our showroom in Dubai for demo purposes. We are also going to do roadshows, demos and open houses as well,' Krishnan adds.

Afra already has four sale prospects 'ready to go' in the MEA region. 'They are waiting for the machine to arrive and see it live. They cannot go to Brazil. In fact, Etirama Europe does not have the SPS2 press either. It has the Superprint,' he says.

Afra plans to present the Etirama SPS2 press to customers at an open house event scheduled for late May or early June (the date has not yet been set). The new machine will also be presented in São Paulo and Dubai in May 2021 and at Labelexpo Europe.



Akanksha Meena is L&L's new MENA editor. She is also editor of Brand Print

### MENA news in brief Multivac appoints regional VP

Multivac has appointed Philipp Losinger as vice president of subsidiary operations in the company's corporate sales and marketing division, responsible for the management and strategic development of the subsidiaries in Africa, the Arab Emirates, and Oceania.

'The vice presidents of subsidiary operations essentially coordinate the interaction between our subsidiaries and group headquarters, and they work with the local managing directors to achieve strategic development, which is tailored to the particular market situation,' said Dr Tobias Richter, executive vice president of corporate sales and marketing at Multivac. 'This also includes our business with third-party products and consumable materials.'

### HP appoints head of EMEA

HP Middle East, Turkey, and East Africa has appointed Vishnu Taimni as the new managing director for the region effective February 1, 2021. In his new role, Taimni will be responsible for managing and growing HP's Personal Systems, Printing, Industrial Graphics and 3D printing businesses in the Middle East, Turkey and East Africa.

With over 20 years' experience in the industry, Vishnu has held a series of senior management roles, including most recently print category lead for the Middle East, Africa and Eastern Europe markets, and before that, head of Home Printing Solutions in the EMEA region.

#### MacDermid appoints EMEA sales director

MacDermid Graphics Solutions has appointed Dirk Schimmack as sales distribution director, EMEA. He has over 17 years in the graphics supply chain with significant experience in flexographic printing plates and workflows and international distributor management. Schimmack previously worked in a regional sales director role at Flint Group.

With this appointment, the company has added a strategic resource for its network of distributors throughout the region.

Matt Bennett, vice president, EMEA, MacDermid Graphics Solutions, said: 'We have an aggressive strategy to grow MacDermid in the EMEA region, our distributors are key to this growth. With the addition of Dirk, we can now better partner with our distributors to provide value to our customers and the entire graphics supply chain.'

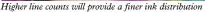


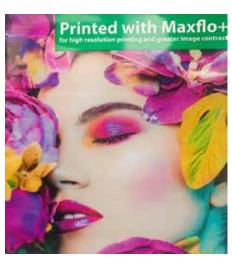


# How to improve print quality in four steps

Sonia Arcos, technical sales director at Cheshire Anilox Technology, highlights four steps label converters can take to improve print quality







#### 1. Select the right line count

The screen specification of an anilox roll is an important consideration which will impact print quality. The objective is to use always the finest anilox screen count possible, providing we can achieve the required color densities.

Higher line counts will provide a finer ink distribution, which will be critical during the printing process. The line count determines the total number of ink dots that will be transferred to the plate. Higher line counts place more cells closer together. Smaller dots will dry faster, producing less dot gain, which will offer better image clarity in process jobs.

When selecting a line count for a process job, the rule of thumb is to specify the line count at least five times the plate screen. This ratio allows the cell walls to adequately support the dot and keeps the dot from dipping into the cells.

Line count is chosen in correlation with cell volume. For example, if for printing solids a volume of 8 cm3/m2 is required, the line count will be approximately 400 LPI. Please consult Cheshire Anilox Technology's volume chart to select the optimum volume for the chosen line count.

The only downside with fine line counts is the cell size is reduced, becoming more challenging to deliver an adequate cell volume for achieving the correct color densities.

#### 2. Maintain a consistent volume

Maintaining a consistent ink volume is critical to color reproduction, and the

anilox engraving specifications are key to controlling ink film thickness on the printing plate.

Ink film thickness is the volume of ink that transfers to the printing plates and is what determines color strength and print quality. The strongest, thinnest film of ink (while maintaining color density) always prints best. Without enough volume, the color prints weakly. On the other hand, an overload of ink results in dirty print or too much dot gain.

In order to find that sweet spot in the amount of ink transferred to the substrate, a number of things must be addressed, like the type and viscosity of the ink, the type of printing plates used, and the types of substrates. However, in order to systematically control the color and print quality, the consistency of the engraving is paramount.

One main factor that will affect the ink transfer from the anilox cells is the cell shape and engraving geometry. In order to ensure a consistent ink film thickness, the anilox specification should be within a depth-to-opening ratio of approximately 30 percent. This will ensure a good, effective ink release from the anilox cells to the plate.

"In order to find that sweet spot in the amount of ink transferred to the substrate, a number of things must be addressed"

Depth-to-opening ratio is defined by how shallow or deep the cells on an anilox roll are. For example, if a cell is 30-µ. deep and 100-μ. wide, its depth-to-opening ratio is 30 percent. On average, a 30 percent depthto-opening ratio may transfer 20 percent of this volume to the web. If the same cell is 40-μ. deep, its depth-to-opening ratio is 40 percent. This cell may transfer 18 percent of what it holds to the web.

In other words, at a given line count, the deeper a cell gets, the percentage of ink transferred to the plate reduces. When possible, it is recommended to use depthto-opening ratios in the 30 percent to 35 percent range.

#### 3. Cell geometry

How does one determine which engraving to use on the anilox roll? As shown in the chart, it is not solely the volume of the anilox roll. Rather, it is a function of the cell geometry on the anilox roll that dictates exactly how much ink transfers to the printing plate. This ink film thickness should be the focus when selecting an engraving. The chart is an example in which the same ink film thickness was achieved using two different volumes. The result? Both the color strength and dot gain were almost

How can a 3.5 volume produce almost identical results when compared to a 3.0 volume? The 1,000 is a deeper engraving

Anilox	Density	2%	25%	50%
1,000LPI x 3.5cm3/m2	1.45	18	53	77
750 LPI x 3.0cm3/m2	1.45	19	55	79

Determining which engraving to use on the anilox roll

and releases less of what it holds. This results in the same ink film thickness to the printing plate as the 750 with a lesser volume because the shallower cell releases more of what it holds. Essentially, the shallower cell has a more efficient ink transfer.

# "The key to ensuring maximum performance from anilox rolls is implementing a preventative maintenance program"

If a printer is using consistent depth-toopening ratios for all volume requirements, the same percentage of ink will transfer to the plate. This will make it easier to identify which rolls to use with new colors and print jobs.

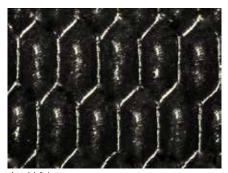
On the other hand, using inconsistent or excessive depth-to-opening ratios will result in more adverse side effects than

just color matching issues. Deep engravings are rough, form inconsistent cell walls and introduce many variables that greatly reduce the chance of consistency in your printing process.

Choosing line counts at proper depthto-opening ratios ensures uniform cell geometries. The cell walls form more consistently and produce engravings that will last longer, print more consistently and be more resistant to damage. Furthermore, if cleaning anilox rolls is a challenge, keeping the depth-to-opening ratio at less than 40 percent will make rolls easier to

New laser engraving technology has allowed the development of new engravings that offer a greater ink transfer and consistency of ink volume at the same or higher line counts. The reason for this is engraving cells or patterns with a better and more effective shape that is more efficient at ink release.

The images below show engravings at the same volume and depth-to-opening ratios. To the left is a standard 60-degree hexagonal cell. If dots on the print are smaller than the opening of this cell, new cell geometries (like MaxFlo+ on the right)



60-degree hexagonal engraving (left) and MaxFlo+ engraving (right)

can increase the plate support by increasing the horizontal linescreen count by about 40 percent. However, to maintain a proper depth-to-opening ratio, the vertical line count has been reduced. About the same number of cells exist on the roll, but the final result is sufficient plate support for smaller dots.

#### 4. Adequate maintenance

The key to ensuring maximum performance from anilox rolls is implementing a preventative maintenance program. This means not only ensuring rolls are thoroughly cleaned after each use, but also tracking their essential data points.

Anilox cleanliness is critical because dirty or clogged cells can degrade performance by reducing cell volume and causing uneven appearance or random patterns in the print

In order to ensure reproducible results, regular cleaning is essential. Adequate cleaning and maintenance will preserve the original characteristics of your Anilox rollers and prolong their life.

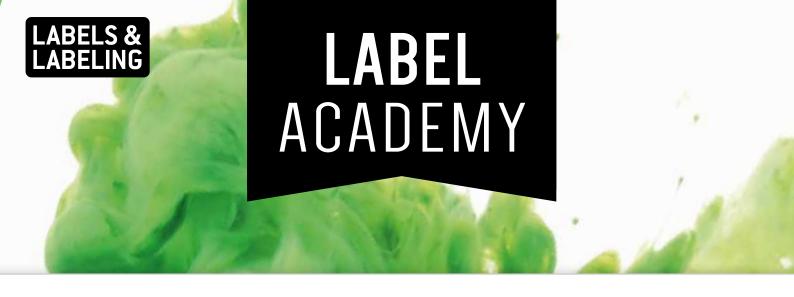
It is imperative that when an anilox roll is returned to storage that any chips or scoring lines have been documented. The volume should be measured, and the data should be captured so the prepress department knows that each roll is 100 percent ready to run the next job.

By taking the proper precautionary measures and maintaining a strict cleaning regimen, converters are likely to see vast improvements in how long their anilox rolls remain viable.



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# Analyzing hybrid printing

In an extract from the Label Academy book 'Digital label and package printing', Mike Fairley analyzes the opportunities brought by hybrid printing technology

ooking back over the past 20-30 years, the great majority of all digital label presses installed to date have been either electrophotographic or inkjet. More recently, the major conventional press manufacturers have moved to building new generation flexo printing and finishing machines, maybe incorporating screen as well, that have four, five or more inkjet units incorporated into one complete production line. Such machines are now classified under the term 'hybrid' presses. A new development for digital printing, but multiple process presses themselves are not new.

The development and use of label presses that incorporate two or more (analogue) printing processes in-line with a range of finishing units that may include hot or cold foiling, embossing, varnishing, slitting and die-cutting has a long pedigree. Indeed, combination process machines that bring together rotary screen, rotary letterpress and/or UV flexo together with added-value finishing options, have been used for long runs of luxury brands for something like 30 years, especially for the production of labels for wines and spirits, cosmetics, and other high value goods.

However, many of these luxury markets for labels are now looking to move to shorter runs, more versions and variations, variable text or graphics, personalization and a much greater freedom of creativity. In addition, promotional programs are being extended and brands are looking to find better or newer ways of connecting with consumers, and through the use of e-commerce.

#### Creative requirements

It is these changing run lengths and added-value, variable and creative requirements that have increasingly begun to challenge the analogue label press market. Flexo presses, and even combination analogue process presses with quick-change and automated set-up — both press and finishing — have been able to go some way to meeting brand demands, but have increasingly struggled to be cost-effective for shorter runs and the need for frequently changing variable content.

Digital presses on the other hand, can provide the shorter run and variable features that are now required but, up until fairly recently, could not provide the more complex in-line finishing options — generally undertaken off-line or near-line on a separate stand-alone finishing machine. Some finishing equipment vendors have admirably filled this gap — often with increasingly high specification machines — and will undoubtedly continue to do so. However, this does lead to double handling, double manning, and double set-up time and cost — and adds to the overall finished label production timescale and job cost.

The challenge for the label – and increasingly flexible packaging and carton converter – is that as the digital label printing market continues its ongoing growth it will require an ever-greater range of in-line conversion and finishing techniques, such as foiling, embossing, laser die-cutting, metallic ink printing, reverse-side printing, laminating and coating, as well as more flexibility in the production process. This all requires increased press and finishing in-line automation. Such automation can be essential for digital label production because of the shorter run lengths common to digital print runs. Moving part-completed jobs between printing and finishing lines is more time consuming and more costly.

Label converters undoubtedly dislike so-called 'touch points' in the manufacturing process where manual intervention is

needed because it removes one of the key advantages of in-line manufacturing. In such cases, the higher cost of hybrid digital label presses with in-line, ever-more automated conversion capabilities is increasingly coming to be seen as representing a good investment in simplified and more cost-effective manufacturing. Quite simply, the added cost can be paid back via greater throughput and efficiency.

This is where hybrid analogue/digital presses have increasingly started to come into play during the past three to five years. Even before that, and going back some twenty or so years, rotary letterpress and flexo machines were already starting to incorporate single- color (initially toner-based and then inkjet) digital printing units to providing the variable data, followed by the necessary finishing options.

More recently there have been a number of companies providing mono inkjet units that fitted onto flexo presses so as to provide variable content, followed in the past few years by the incorporation into flexo presses of retrofitted CMYK or CMYK + White inkjet units from the likes of Colordyne, Industrial Inkjet, PPSI and IPT. These retrofit CMYK inkjet on flexo presses are today counted as hybrid installations.

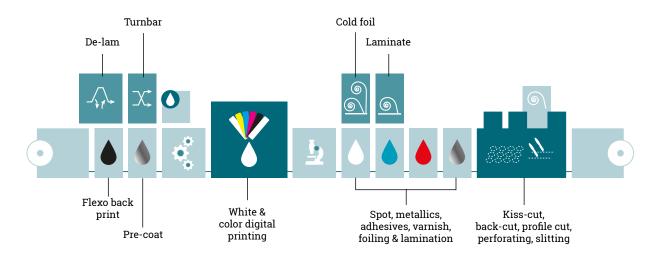
Another route to achieving high added-value finishing on digital presses has been for the leading inkjet press manufacturers to incorporate in-line finishing – initially flexo spot color, cold foiling, varnishing or laser die-cutting – into their own production lines.

"Today, pretty well all the main global flexo press manufacturers are building hybrid presses, with all the necessary in-line finishing options"

Today however, pretty well all the main global flexo press manufacturers (Edale, Focus, Gallus, Mark Andy, MPS, Nilpeter, Omet, etc) are building hybrid presses, with all the necessary in-line finishing options. Many of these new hybrid machines are the result of partnerships with digital press or print head manufacturers.

Latest market analysis indicates that there are now already well over 180 hybrid presses installed worldwide in the label industry, with a few now also being used for flexible packaging. Other, bigger web and sheet-fed press manufacturers have also developed (or are in the process of building) hybrid machines for flexibles and folding cartons. In the pipeline are increasing numbers of hybrid press orders and installations — probably adding another 50 or so machines to the installed base each year. The hybrid route is now undoubtedly well established, with many such hybrid machines becoming increasingly complex — even including the creation of bespoke hybrid presses for applications such as leaflet labels, multi-layer labels, peel and reveal labels, and more complex linerless labels.

What seems to be happening today is that the top 10-12 percent of the press market that used to be combination process analogue presses, is now migrating partly to hybrids with a CMYK



A typical web-fed hybrid label press construction. Diagram based on images originally developed by FFEI and Canon

+ digital function and all the necessary in-line analogue printing, embellishing and finishing units. This would currently give an annual market share for hybrid presses of, say, 6-8 percent of all new label presses. If hybrids replaced all the annual installations of combination process presses it would indicate sales of possibly up to 65-75 hybrid presses a year within the next five years. Probably no more than a 10-12 percent annual installed market share.

#### **Defining hybrid presses**

There have been a number of suggested definitions for hybrid presses. The terms 'hybrid printing' and 'hybrid presses' are now common. However, the terminology – and what it includes or excludes – is still apt to change depending on the particular press manufacturer, end-use customer or the media. So how do we define what is a hybrid press?

It's probably easier to start by saying what it isn't. A 4-, 5- or 6-color flexo label press with a single monocolor digital inkjet head added in-line before finishing is generally not regarded as a hybrid press. However, some flexo press manufacturers with a CMYK (sometimes plus white) inkjet unit have added one flexo station that can be used for spot color, cold foil, black mark or varnishing, followed by die-cutting and rewinding units, and refer to this as a hybrid press.

At the other end of the scale, some of the major press manufacturers regard a 'true' hybrid press as one that incorporates CMYK + White (sometimes also OGV) with a CMYK flexo press, all in-line, together with multiple finishing options such as hot or cold foiling, embossing and die-cutting. In this case, the 'true' hybrid system can be run as a stand-alone digital press, a stand-alone flexo press, or as a hybrid press combining the benefits of both, plus a range of different in-line converting and finishing options.

In practice, and from study and analysis of more than 70 global hybrid label press installations to date, the most common format of what may be called a 'true' hybrid installation is one that takes a minimum of a CMYK + White digital inkjet unit and places one or two flexo (may also be rotary screen) stations in front of the inkjet unit (and possibly de-lamination) and places two or more flexo stations after the inkjet, then adding unwind, rewind and tension control capabilities, and incorporating stations for re-laminating, metallic ink printing, foil tinting, cold foiling or hot foiling, embossing, raised effect varnishing and die-cutting - all as specified by the converter customer.

Put all the possible options together and it can be said that a hybrid label press is one that has a minimum CMYK digital printing unit, combined with anything between two and seven color flexo

stations (which may incorporate CMYK process) and perhaps a minimum of varnishing and die-cutting. In practice, it is the more complex finishing possibilities that have become particularly attractive to converters looking to add brand value.

Some of the analogue printing stations – depending on the press manufacturer and particular application – may alternatively be of rotary screen, offset or gravure, again depending on the application. Such complex printing and finishing can provide interesting and effective brand protection and anti-counterfeiting features on labels and packaging.

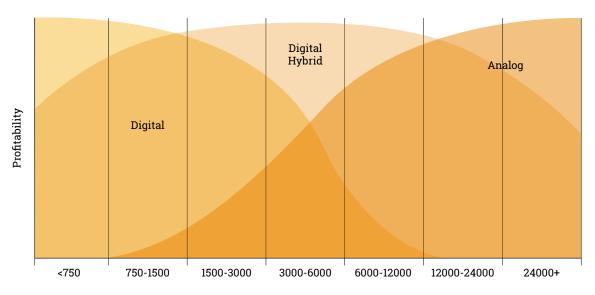
There is no doubt that hybrid label printing presses offering a variety of exciting printing and finishing opportunities are starting to become more widely accepted by the label converter. Flexible packaging and folding carton printers, as well as brand manufacturers, are also quickly catching on to the value of integrating digital printing into their wider format web-fed gravure and flexo presses, or in combination with sheet-fed offset presses.

"Label converters dislike 'touch points' in the manufacturing process where manual intervention is needed because it removes one of the key advantages of in-line manufacturing"

A key factor in these newer hybrid developments has the latest innovations in packaging inks that are now regarded as safe for indirect food contact applications for flexible substrates, folding carton and corrugated substrates. This is particularly important as, although printed packaging volumes are increasing, there has also been a significant shift to shorter runs and SKU proliferation. This can mean that a print run of 100,000 could actually be ten runs of 10.000 each.

The integration of UV flexo and UV inkjet works well. Inks for each process are chemically almost identical and can therefore print equally well on the same substrates. The same can apply to water-based flexo and water-based inkjet. Put together, flexo and inkjet technologies can today match quality, printing speeds and performance all in an in-line hybrid environment. This enables customized hybrid systems to be created that are 100 percent

#### Suited to the majority of label needs for short to medium runs



Run length in linear feet

Hybrid presses can meet the majority of label and package printing needs

tailored to the printing operation's specific needs in one financial investment.

Depending on the particular requirement and effectively bespoke for each individual customer, web- or sheet-fed hybrid press lines may also be built to include turnbars, pre-coating, delamination, lamination, back-cutting, slitting and perforating as required. A diagram showing a possible typical hybrid web press construction can be seen in the image on this page. This is a relatively complex hybrid construction with flexo units before and after the digital printing, and including de-lamination and lamination, turnbar, pre-coating, cold foiling, metallic printing, adhesive printing/ coating, varnishing, cutting, perforating and slitting.

#### Benefits of hybrid

Analysis for article involved reviewing a great many hybrid press installations worldwide and looking at what converters had to say about their investment, the benefits obtained, and opportunities that the investment has provided – which appear to be almost endless.

One of the key challenges is to make use of the potential that hybrid label and package printing presses now offer to take converters into product and market applications that are beyond anything that current analogue or digital presses on their own are able to provide.

The traditional analogue printing processes have evolved over many years. Digital printing — whether toner or inkjet — is comparatively new. Added-value finishing systems continue to be introduced. Put all these together in one in-line hybrid press, linked to today's sophisticated automated set-up, changeover, computer-controlled and MIS integrated machines, and almost anything becomes possible.

What does the converter, and its customer, want to achieve? Variable text and graphics, multiple versions and variations, personalization, customization, raised effect and tactile finishing, serialization, embossing, metallic foiling (cold or hot), laser cutting and etching, punching, perforation, spot colors or varnishes, matt and gloss varnishing, slitting and so on. It is now possible to have all these possibilities in one cost-effective and profitable production system – whether for short or medium long runs. Indeed a hybrid system for almost any type of label need.

So what do the pioneer hybrid press investors say about their installations? Perhaps the most common of the stated benefits of investing in a hybrid machine are those relating to production or cost efficiency, to maximizing productivity, to versatility, to reductions in waste and set-up time. Typical comments include: 'Provides the best of both worlds'; 'A complete one-pass production tool'; 'Eliminates "touch points" where human intervention is needed'; 'Higher productivity'; 'Lower lead time'.

What seems certain from converter feedback is that a hybrid press installation immediately begins to provide key benefits in converters' day-to-day operations and will have a positive impact on their bottom line.

In addition, many converters that have installed hybrid machines are using them as a means of creating new business and of adding value, taking full advantage of the many different hybrid printing and finishing possibilities.

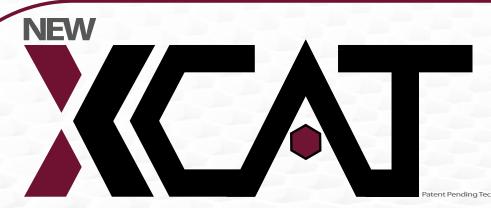
## "Feedback from converters that are successfully using hybrid machines provides compelling reasons for adoption"

Some of the most common comments that press investors have set out to justify their decision making are: 'Combines advantages of flexo and advanced digital printing'; 'Flexibility to create and adapt designs more freely'; 'Flexo and digital together offer unlimited solutions'; 'New opportunities for product differentiation'; 'Suits market trend for shorter but more complex run lengths'.

Put together, the feedback from converters that are now successfully using hybrid machines already provides compelling reasons for adopting this, relatively new, production technology.



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# Flexible packaging constructions

In an extract from the Label Academy book 'Flexible packaging', Mike Fairley and Chris Ellison examine the various types of flexible packaging which can be converted by label printers using narrow or mid web presses

lexible packaging can be defined as primary packaging without any fixed shape that is designed to hold products, goods, solids, liquids, creams, pastes or powders.

A range of factors need to be taken into account when designing flexible packaging for a particular application. How will the products be inserted? What protection is required? Will the packs have to lay flat? Will they need to stand up on a supermarket shelf? How will they be opened or emptied? Do they require a re-closable feature? How are the packs to be sealed or closed? Do they require an easy carry handle or feature? What about hanging holes? How will they be transported?

Providing added-value features can significantly enhance the value of a flexible pack. Such features can include flip-top caps, pumps, gussets, squeezability, easy-open features, notch options, dispensing possibilities, pre-made straw holes, self- heating pouches, aseptic pouches, child-resistance, tamper-evidence, pourable spouts, zippers, and tear-off pull tabs.

Flexible packaging types will often overlap: pillow sachets, pillow pouches and pillow bags are all essentially the same, for example. The difference comes in the size of the pack. Pillow sachets are generally quite small and can be printed and produced on a narrowand mid-web press, while pillow bags (depending on size) are more likely to be produced on mid- and wider web presses. Sacks and other larger sizes are not the kind of products capable of being produced on narrow or even mid web presses.

More recent developments in flexible packaging have included the evolution of spouted packages. Spouted pouches are reclosable, which makes them a good match for grab-and-go products. The pouches can be made with die-cut handles for better portability. In addition to being customizable, reclosable, and portable, spouted pouches offer great flexibility in the types of products they can hold, including food, beverage, condiments, dry mixes, pet food, granulates, and powders.

Which flexible packaging formats are most suitable for label converters looking to expand their product portfolio?

#### Wrappers and wrapping

Of all the flexible packaging types, Twist wrapping is one of the most easily recognizable. Its major advantage is that the ends can be easily unwrapped or untwisted to enable the consumption of small pre- formed confectionery items such as toffees and other types of candy products.

Pre-printed wrappers and decorative wrapping bands are an effective way to provide pack visibility and identity. In many cases products are completely over wrapped in paper, foil or film in a process called Flow wrapping - a horizontal packaging technique used for wrapping both single and multi-pack applications with a continuous flow of wrapping material – so as to form an airtight

Flow wrapping can be applied to various sized products, but it is most commonly used for smaller items that are either sold individually, or as part of a collection of items in a larger package. The wrapping may be clear or printed to meet different brand and



## "Non-food flow wrapping is an extremely versatile packing method that is adaptable for use with many products"

Flow wrapping, sleeve wrapping, food wraps and confectionery wraps are optimum solutions for the growing market for all kinds of snacks.

Films used for confectionery product wrapping cover the full range of base materials available and are very much dependent on the brand owners' desired retail requirements. These range from highly decorative basic polyethylene bags, to laminated polypropylenes and metalized materials that lend themselves to outer bags, inner wraps and provide shelf-life for ingredients such

Non-food flow wrapping is an extremely versatile packing method that is adaptable for use with many products, including

flow wrap for the encapsulation of irregular sized or solid products in clear or printed film e.g. dry, solid products such as sponges, cutlery, cloths, razor blades, soap bars, and even medical devices, hardware and industrial components.

Flow wrapped items can be presented in either a clear or printed film. Clear flow wrapping is an effective way to package small items inside larger packages, for example free gifts, while printed, full-color flow wrapping is a great way to promote promotional items to their best advantage. If required, holes or slot cut outs can be created to enable flow wrapped packs to be hung on point of

Flow wrapping has also become increasingly popular for the packaging of promotional items, such as individual portion samples of food or beauty products for door drops, or free gifts for packaging inside cereal boxes.

Sleeve wrapping is when single or multiples of the same products are wrapped in paper or film, with both ends open. Common uses for sleeve wrapping are for soft drinks bottles or cans, as well as where multiple units are wrapped together.

#### **Pouches**

There are numerous sizes, formats, styles and shapes of flexible packaging pouches that can be produced by label converters. Pouches can be quite simply described as small bags that are most usually constructed by sealing one or two flat sheets along the required edges. There is generally no clear distinction between a pouch and a sachet other than a common understanding that a sachet is much smaller.

The most widely used of all the flexible packaging pouch products are pillow pouches and stand-up pouches, with the former expected to achieve the highest gains due to their increasing acceptance and much wider usage in the food, beverage and dairy industries. Low cost, high sealing ability and cost-efficient transportation are some of the key properties of pouches that are positively influencing increasing product penetration.

However, there are many other types of pouches in wide usage, from two, three and four-sided pouches, re-closable pouches, zipper pouches, pourable pouches, spouted pouches, retort pouches and gusseted pouches. The most commonly used of the pouch types are described in more detail below.

Pillow pouches. A pillow pouch is essentially a bag or pouch in the form of a tube that is sealed at both ends. They are most commonly produced on vertical-form-fill-seal (VFFS) machines (which will be described in Chapter 5) and are characterized by seals across the top and bottom of the pack and a longitudinal seal going down the center of one of the faces.

Pillow pouches are used for the packaging of a wide range of food liquid products, pasteurized or sterilized, including milk, fruit juices, cream, sauces, soups, water, etc, in sizes containing from 30ml to five liters, and running at filling and sealing speeds up to 200 pouches per minute.

Non-food applications for pillow pouches are as diverse as liquid detergents, distilled water, oil, washer fluids, liquid soaps, shampoos, pet foods and vegetables.

Some of the other types of pillow pouches include the threesided-seal pouch. This is a pouch that is formed by folding the web material into a U-shape and then sealing the three open sides. The pouch may be made with a gusseted bottom. Three-side- seal pouches are typically made on horizontal form-fill- seal machines.

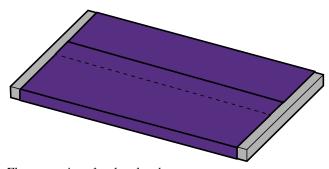
Four-side-seal pouches are pouches produced with seals along all four edges. Four-side-seal pouches can be made from a single stock or the front and back can be different stocks, as long as they have heatseal compatibility. These pouches are most commonly made on multi-lane pouch-forming machines where 16 or more pouches can be placed across the width of the web.

**Gusset pouches** are produced to incorporate a fold in the sides

"There are numerous sizes, formats, styles and shapes of flexible packaging pouches that can be produced by label converters"



Twist wrapping of confectionery and candies. Source: Esko



Flow wrapping of a chocolate bar







A simplified drawing of a pillow pouch. Source: Esko





An illustration of a stand-up pouch. Source: Esko

### "Permanent seal films work well for many applications including fresh cut fruits and vegetables, dairy products, sauces and dips"

and/or bottom of the pouch, allowing it to expand and provide a 'stand-up' feature when contents are inserted. However, incorporating side gussets will increase the overall pack size, making it too wide for printing on a narrow- web press. Although gusseted pouches may seem to serve a similar function to stand-up pouches, their construction is quite different. Only the front face, and the back faces either side of the seam, are decorated.

Stand-up pouches are essentially a laminated film bag, typically made of plastics or a blend of plastic film and aluminum foil, that is able to stand-up on a shelf or display area. They can be decorated front and back with high quality color printing, logos, or exciting designs, so the potential to really make an impact on retail shelves is very high. Stand-up pouches are excellent options for both dry food packaging and for a range of liquid products.

Made from a continuous web of material, the first step after the film is printed and supplied comes in the stand-up pouch manufacturing process when the material is passed through a set of ploughs that fold a W-shape gusset into the bottom, so it can stand up.

Single or re-fill stand-up pouches in particular, are being used for an increasing range of products, from liquid detergents to beverages and lubricants - and this is expected to continue to grow rapidly.

Stick packs or stick pouches are narrow

tube- shaped flexible packaging paper or laminate pouches with a fin seal running from top to bottom on the back of the pack and sealed horizontally across both ends. They are commonly used to package single-serve powder beverage mixes such as fruit drinks, instant coffee and tea, sugar, sweetener and creamer products. They are easy to open and simply require tearing at the top to enable the contents to be tipped or poured into bottle, cup or mug for use. Tear notches or laser scoring options for opening may also be incorporated.

The popular **retort pouch** is a flexible laminated food package that can withstand thermal processing. The choice of materials for the manufacture of retort pouches is very important. The material must have sound structural integrity and be able to withstand retort temperatures generally around 121 deg C, as well as normal handling conditions. A hermetic seal is achieved in retortable pouches by the fusion of two heat-sealable layers (such as polypropylene) to each other.

**Zipper pouches** consist of a flexible plastic pouch with a molded-in-place sealing device wherein a projecting rib or fin is inserted into a mating channel to effect a closure. This will add to the overall pack size. Zipper seal pouches can be repeatedly opened and closed as often as desired. The contents stay fresh and optimally protected. The Zipper pouch represents supreme convenience for the end-consumer, being convenient to handle, re-closable, and easy to carry thanks to lightweight packaging. They are easy opening, and preserve the flavor and texture of the contents.

Spouted pouches are a lightweight and convenient alternative to holding liquids, pastes or loose materials which are mostly packed in conventional bottles, canisters or buckets. Quite simply, a spout with screw cap is integrated in the top fold or corner of a pouch, offering both convenience and reclosability. Compared to rigid containers or boxes, spouted pouches are lighter in weight and more sustainable due to

the reduced amount of material used. They can be easily filled and transported cost-efficiently as the pouches are space saving and offer more packs per unit. Handles can be incorporated on the back of the pouch to provide easy handling, even when holding as much as five liters.

Spouted pouches offer a large communication area on each face, which is ideal for branding and eye-catching designs. High-quality printing in up to eight or ten colors and maybe special inks (e.g. metallic) ensure an attractive appearance for potential buyers at the point of sale.

#### Sachets

As mentioned earlier, a sachet can be defined as a small pouch – ideal for the printing of shorter runs by narrow and mid web label converters.

A variety of materials can be used for sachet production, including paper, aluminum foil, paper backed foil and PET foil. Individual packs can be designed and printed in a range of colors to reinforce branding, as well as displaying all the required regulatory and product information.

Different size and shape variations of sachets can be filled with an ever-increasing range of products, including powders, tablets, capsules or liquid.

Sachets are produced as two basic types: a fin seal type which is a face-to-face seal on each side of the pack and a pillow style which has a crimp seal on the top and bottom edges, together with a flat seam running down one side or on the back.

The majority of machines used for these types of operations, are of the vertical form fill seal type, although horizontal form fill seal equipment is sometimes employed.

Sachets are often the first choice for packaging many food, medical, cosmetic and household products. The distinct advantage is that each individual sachet provides the consumer with a new, clean and fresh product each time. The aim is to promote and supply products in convenient,













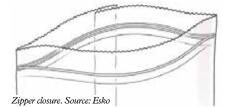






Personalized digitally printed stand-up pouches





distinctive and affordable portions, so that the consumers get to know and like the brand. Sachets are also ideal for sampling.

For easy point-of-sale dispensing on hanging displays sachets may be produced with easy-tear notches, and incorporate hanging holes or slots on the top edge.

Correct selection of sachet laminates offers a number of advantages - appealing design and enhanced graphic presentation opportunities (predominately printed by flexo, or digital for short runs, test marketing, etc), and to provide long product shelf life, high puncture resistance, sterilizability, simple handling and easy opening and, importantly, a low weight, which means minimum wastage.

Applications for sachets are today as diverse as creams and gels, impregnated hand, face or spectacle wipes, liquids, pastes, sauces, creams, personal care and hygiene products, veterinary treatments, powders, granules, medical patches, haircare products, tissue wipes, and a variety of applicators in sachets, such as swab sticks.

#### Lidding

Lidding films, made from aluminum lacquer coated and extrusion coated foils, foil/film, paper/film and paper/film/foil laminates are commonly used to seal and protect products such as yogurt, cream, soft spreads, cheese, jams, ready meals, seafoods, cosmetics and veterinary products that have been packed in tubs, jars, bottles, plastic or metallic trays. In addition, they provide an ideal marketing platform and an important decorative and branding function.

Most lidding films are designed to be peelable to allow easy access to the pack contents, although peel and reseal, permanent seal and also rigid lidding may also be used for some applications, the latter for ice creams.

Peelable lidding films are used to seal to a variety of trays and containers and are ideal for many applications including

dairy products, dips, sauces, processed meats, salads, microwaveable meals, and more. Both high barrier (for extended shelf life) and non-barrier lidding materials are available depending on the requirements, as well as permanent seal (also known as weld and lock seal) and peel and reseal lidding films that can keep food on the go and prepared foods fresher for longer than products that do not have re-sealable lids.

Multi-use peel and reseal lidding films are designed for rigid or semi-rigid HDPE and PE thermoformed trays and cups and conveniently peel and reseal up to ten times to ensure safe storage and product freshness

Permanent seal films work well for many applications including fresh cut fruits and vegetables, dairy products, sauces and dips. High-clarity films are available in low-barrier, standard-barrier, and high-barrier structures.

Lidding may be supplied by the converter in daisy chain, die-cut and roll formats. Daisy chain flexible lidding, in which each lid is connected in a single continuous chain connected with a lid tab, is commonly used to seal small diameter containers. The lid rolls are unrolled on the packaging machine, sealed, and individually cut with a single cut in the tab area. A wide range of material structures are used, including aluminum, polyester and paper polyesters.

Daisy chain lidding - printed or unprinted – is widely used for portion control and single-serve packaging, from dipping sources to creamers and dressings. The processing stages of this type of lidding will be familiar to label converters, involving printing, inspection, die-cutting, waste removal, slitting and rewinding.

Die-cut flexible lidding is pre-cut (including a pull tab) to virtually any shape or size of container by the converter. The lids, which may be aluminum, aluminum laminate, co-extrusion, heatseal lacquer or plastic materials in various thicknesses and sealing layers, are subsequently loaded in

"There are many different ways of constructing bags, pouches, sachets and lidding, many of which are suitable for narrow and mid web converting"

stacks on fill/seal packaging machines and dispensed as the machine runs. No cutting is required on the fill/seal machine.

Die-cut flexible lidding is used on products within the convenience food market, such as pasta, noodles, breakfast cereals, yoghurt and ready meals, as well as commonly used to seal larger diameter containers running on high-speed fill/ seal packaging machines. They offer high puncture and tear resistance.

Rollstock flexible lidding is provided in rolls (web) and then cut on the packaging machine. Materials are available for all application requirements from basic structures to sophisticated high-barrier constructions, including laminate, co-extrusion and heat-seal lacquer technologies. Rollstock lidding is most commonly used to seal containers running on fill/seal, and form/fill/seal packaging machines.

#### Design and construction

As can be seen from the various flexible packaging images, there are many different ways of constructing bags, pouches, sachets and lidding, many of which are suitable for narrow and mid web converting. A key constraining requirement for the label converter is the press web width in relation to the lay-flat total open pack size. For narrow web presses this may only be one pack width across the web (typically around 310-330mm). Mid web presses may achieve two packs across the web with smaller packs. It should be noted that the incorporation of zipper and reseal features will have an impact on the pack design and reduce the available print/ promotional area.



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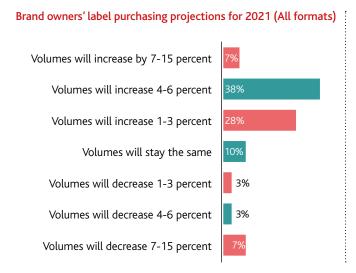


### Advertisers index

Armor	17	Label Academy - MIS	110	RK Print	107
Avery Dennison	8	Labelmen	IBC	Rotometal	32
Berhalter	35	Lemorau	78	Schober	66
Buskro Ltd	66	Lintec	21	SEI Spa	82
Cartes	IFC	Luster	30	Sensory Analytics	107
Cerm	84	Mark Andy	4	SKC	1
Cosmo Films Limited	64	Martin Automatic	64	SPG Prints	18
Domino	24	Meech	26	Sun chemical	45
Durico	34	MoistTech Corp	103	Theurer.com GmbH	96
Epson	BC	MPS	40	T0Y0B0	78
Erhardt & Leimer	2	Nazdar Ink Technologies	38	UEI	57
Gallus	53	Nilpeter	14	Ultralight	107
GEW	13	OKI Europe Ltd	103	UPM	51
Harper Corporation Of America	103	Omet	86	Vetaphone A/S	109
Herma	59	Pantec	84	Virtual Master class	99
Intercoat	66	Phoseon	72	Wassau	98
K+B	47	Prati	63	Yupo	27
KTI	92	Prati	90	Yupo	96
Kurz	3	Printum	12		
L&L.com	28	Re	107		

## Label trends

## The brand owner's perspective



How important is it that label vendors have more than one production facility?

It is critical:

33%
(up from 28 percent in 2019)

It is important but not required: **59%** 

(up from **48 percent** in 2019)

It is not important:

(down from **24 percent** in 2019)

#### Projected label procurement growth:

#### All labels:

2019 survey: projected **3 percent** growth 2020 survey: projects **3.3 percent** growth

#### Digital labels:

2019 survey: projected **7.8 percent** growth 2020 survey: projects **3.6 percent** growth

# Covid's impact on label sourcing in 2020: Volumes of labels purchased compared to forecast 7% 33% 30% 19% 11% much higher slightly higher the same slightly lower much lower

#### 2019 vs 2020

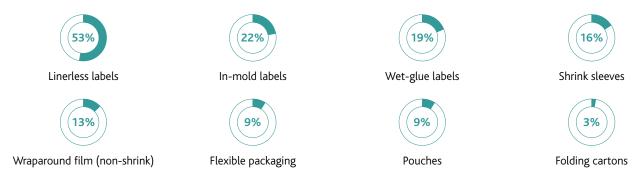
Would be decreasing label procurement volume in the following year

16%

Would increase label procurement volume in the following year

74%

#### Which printed packaging formats do participants have the most interest in?



Source: Finat Radar report 14th edition, which focused on the second half of 2020 in the European narrow web market. Over 70 brand owners and packaging buyers were surveyed



**SINCE 1965** 

**RFID Turnkey Solution** 



# **Market Scope**

2017 METI launched RFID project planned before 2025 all convenient stores will apply RFID labels up to 100 billion pieces.

# **Fashion Industry**

Will apply RFID Tag up to 10 billion pieces



Hand Held & Stocktaking Readers

Practical & Durable



PW-260-R7C

7-COLOR NON-STOP FULL ROTARY LETTERPRESS / FLEXO MACHINE





FDW-360 Series Max. speed: 100 M / min.

TOP SPEED ROTARY STYLE FLAT-BED HOT-STAMPING & DIE-CUTTING MACHINE

#### LABELMEN MACHINERY CO., LTD.

No-9, Tin Hu 3<sup>RD</sup> Street, Kuei Shan Dist Tao-Yuan City (333), TAIWAN http://www.labelmen.com E-mail:webmaster@labelmen.com



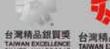














# FAST. EASY. BEAUTIFUL.



### The All-New Epson® SurePress® L-6534 Digital UV Inkjet Label Press

The new SurePress L-6534 represents one of the most modern forms of digital UV label printing ever developed. Powered by a unique Epson PrecisionCore® linehead, it can print at speeds up to 164 linear feet per min.\*, while offering an exceptional level of print quality and reliability.

When you're ready to modernize your label printing business, visit www.Epson.com/SurePress

\*Prints up to 164 linear feet per min. in Production Mode.



Turning this leaf will turn over a new leaf in your search for PSA Labelstock Films

# Quality trusted by world's leading brands

Cosmo Films is a global leader in specialty films for packaging, lamination & labeling applications and synthetic paper. With engineering of innovative products and sustainability solutions, the company over the years has been partnering with worlds' leading F&B, personal care & tobacco brands; packaging & printing converters and labelstock manufacturers to enhance their consumer experience. Its customer base is spread in more than 100 countries with manufacturing units in India, Korea & Japan.

Our Pressure Sensitive Adhesive (PSA)
Labelstock Films have been engineered to provide finest printing as well as complete information eligibility on constricted surface area available for brand presentation. The variants include Transparent films that have been perfected for a "no label" look, Metalized films to lend that sparkling metallic luster and White & Matte films that simply enhance vibrance of every single colour used, on the label.



## Here are some of the reasons for us being the preferred choice

- Diverse portfolio of BOPP Films for the Pressure Sensitive Labelstock Manufacturers including matte coated films and films for repositionable applications.
- Top coating capability across diverse widths (1m, 1.3m, 2.2m).
- Recent installation of a new highly automated 2.2m coating line capable of both side coatings in a single pass.
- Films compatible with diverse print technologies. This includes water & UV flexo, UV inkjet, letterpress, screen, thermal transfer printing and digital printing.
- Proximity to customers with last mile connectivity in Europe, US, Japan and Korea.



Metalized Labelstock Film



Transparent Labelstock Film



White Labelstock Film

# Innovation and Sustainability

We at Cosmo Films have a team of highly experienced research experts specializing in labels, flexible packaging, printing, synthesis and masterbatches. We operate one of the most modern innovation centres with pilot lines for film manufacturing, coating & lamination, along with an in-house application centre to validate converting & printing operations. At the centre, we can also perform film analysis of any kind, be it surface, chemical or polymer.

#### A quest for sustainability

Some of our sustainability efforts include:

Films for recyclable laminates & intelligent packaging solutions for reduction in food wastage.



- Structure rationalized solutions and less polymeric material for reduced consumption of plastics.
- Ultra high barrier films for aluminium foil replacement.
- Use of water based coatings.
- Reutilization of reprocessed granules from waste material as input for film production.
- Working on PCR films for the packaging and label segment.







enquiry@cosmofilms.com

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SMART DIE-CUTTING. SIMPLY **AUTOMATIC**.



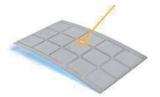




## MAXIMUM **DIE-CUTTING** PERFORMANCE



SuperCut Flexible Dies



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MCR MicroChrome



Flatbed Dies



OptiMag Magnetic Cylinders



PowerCut® Solid Dies



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