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COSMETIC

SONIA V. MAFFIZZONI
Editorial Manager

Attracting new talent to stay competitive

It is almost an urgent issue in Italy and a trend in all industrialized countries: skilled workers are a major problem for many companies, including those in the food sector.
Factors like the aging population, especially in Europe, Japan, and the United States, very low population growth, and the high demand for experts in areas such as IT, programming, data science, cybersecurity, engineering, and renewable energy technologies have made qualified workers scarce. At the same time, schools are struggling to keep up.
Being able to attract new talent therefore becomes essential for companies in the sector. What to do? Simple: make yourselves attractive to future workers.
Flexibility, opportunities for growth, and an inclusive culture combined with valuing talent are the key points to stand out and make room for new, highly valuable workers.

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MACHINES, KNOWLEDGE & FLEXIBILITY, THE KEY TO SHELF-READY PERFECTION

We all take it for granted in the supermarket, but shelf-ready packaging hides myriad features and capabilities, all of which must be balanced to deliver the best possible outcomes for suppliers, machine builders, producers, vendors and, of course, the end consumer.

Packaging equipment specialists need to combine functionality, aesthetics, and sustainability and then bundle them into a concept that delivers ease of packaging, ease of disassembly/unpackaging, maximized visual appeal, brand championing, and optimum sustainability. It's a science test, an engineering project, an art form, a materials study and a marketing exercise all rolled into one.

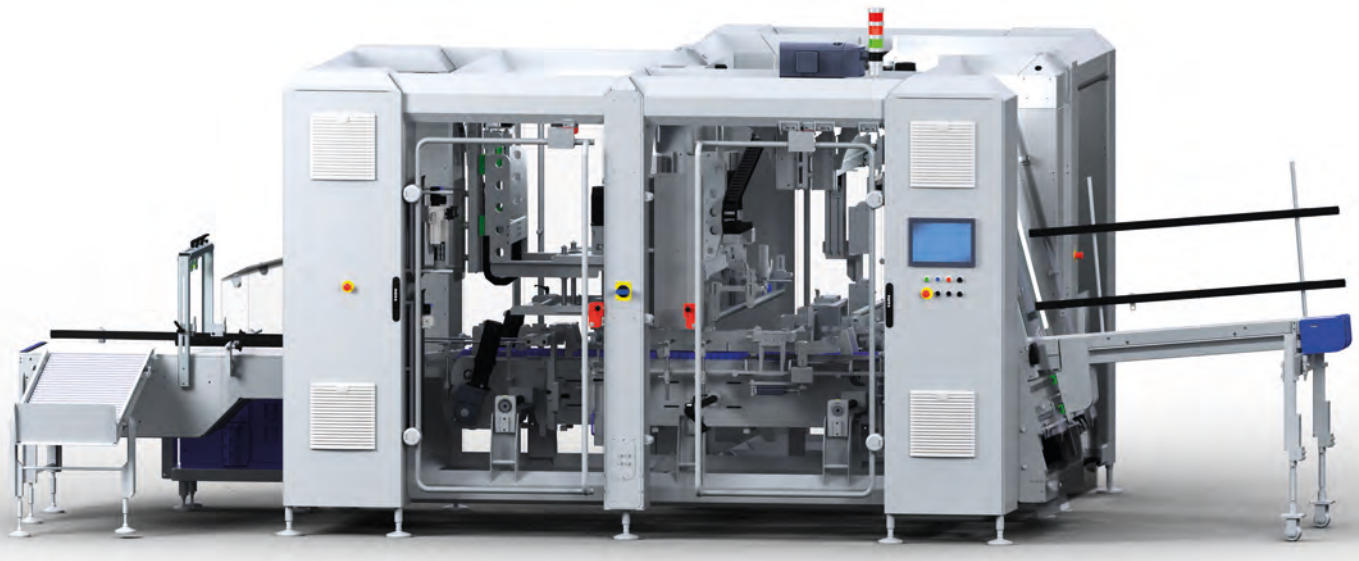
Billy Goodman, Managing Director of Cama North America, takes us through the multiple facets of a successful shelf-ready packaging project – from design concepts, through machine choice and on to end-of-use recycling

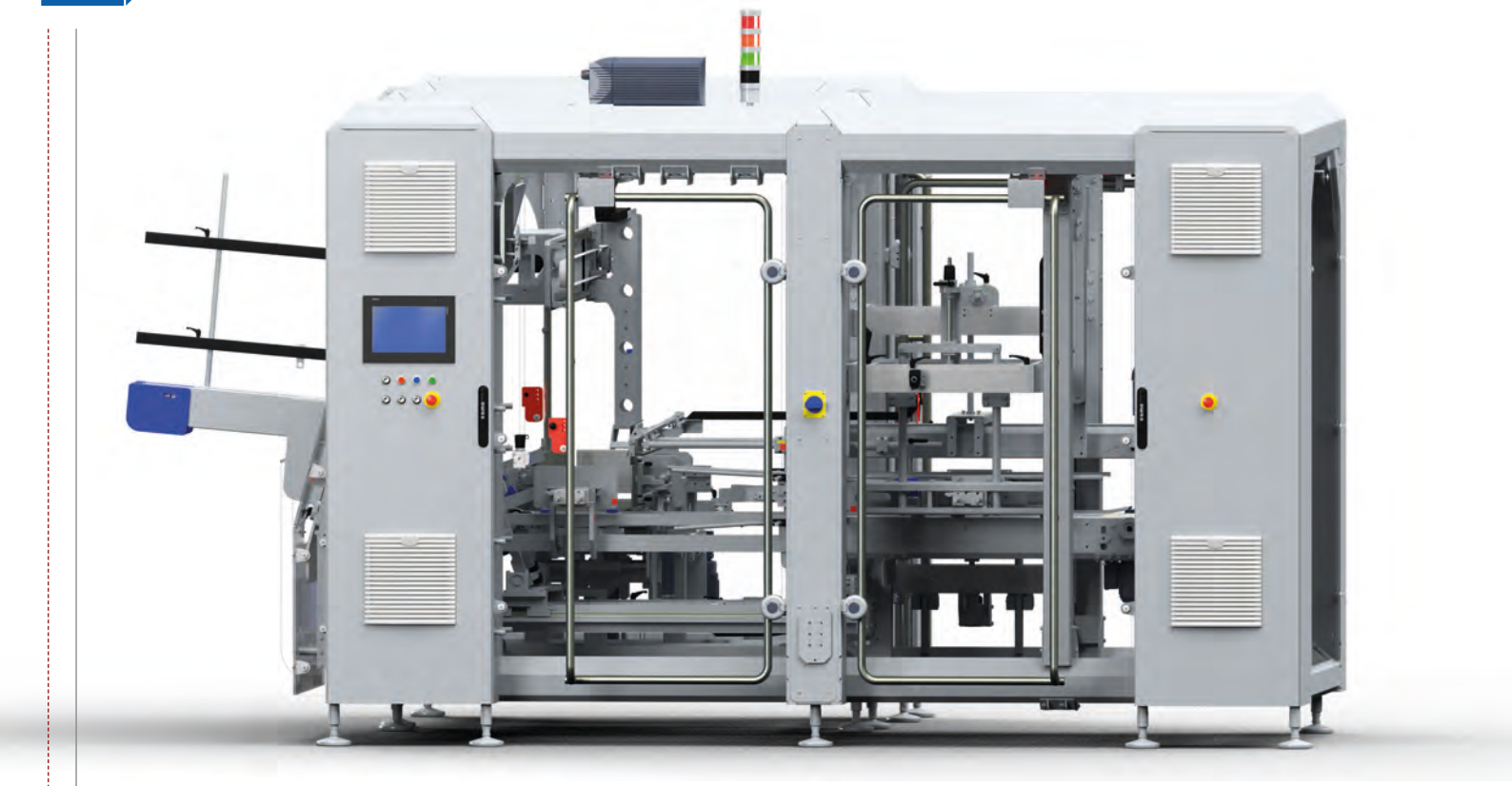
Multiple design considerations

But what makes good shelf-ready packaging? It's not just what you see on the shelf, it's the machine builder's domain expertise and packaging design capabilities, coupled to multiple styles of advanced packaging technologies, all of which must be bought together under a holistic viewpoint of the entire product and packaging lifecycle.

Indeed, the developmental process is not simply 'start to end'. Instead, packaging designers and machine suppliers have to look both backwards and forwards along the value chain to ensure that all stages and functions are fulfilled in the best way possible. A feature or choice at one stage can affect another much further down the line, so all possibilities need to be considered. This development process is never a straight line.

Our packaging-design team is recognized globally for its innovative, eye-catching and functional ideas. A free service – that is part of the full capabilities package – it has helped some customers reinvent their marketing concepts, and saved others tons of materials and costs, while delivering stronger packaging that weighs less than the format it replaces.





Sustainability from the outset

Right from the outset, you need to consider the very end. With sustainability and reduced materials use so high on the agenda, you always need to keep one eye on the ultimate fate of any of the packaging you create. Will it be reused or recycled? This immediately defines the scope for the material selection, not just in terms of type, but also the amount.

The next step is to consider the product being packaged. What shape it is, what's it made of, is it fragile, does it have any strange requirements, how does it need to be presented? Any one of these can have a profound effect on the packaging design and the type of packaging technology deployed. For this reason, you need to look at companies that offer a broad range of packaging formats, not just variations on a theme, which you may have to license.

Look for a wide choice of packaging techniques

You need to factor in machine capabilities too. Some products, counts, presentations, and packaging styles are suited to top loading, others to side loading. You must also think about multi-flavor packages – with multiple in-feeds – or even bypassing, for bulk packaging and buffering. Look for a supplier that offers a wide range of technologies, machines and styles, otherwise you will find them trying to adapt you to their limited array of machines and capabilities, rather than them adapting their machines to your specific products and precise packaging needs.

Next you need to look at how the packaging is palletized. Does it offer the best possible layer count? How does it nest together? What sort of weight can it handle? How many layers can you add without damaging the lower levels? Does it need to be displayed on the pallet? As well as greater efficiency, this feeds into sustainability too, as more boxes per pallet result in lower logistics and fuel costs per product.

When it hits the supermarkets, how easy to use are the tear-offs and have they been designed to tear off cleanly without damaging the rest of the box? In the supermarket setting time is money, so time spent wrestling with poorly designed boxes that aren't fit for purpose all adds up and supermarkets are certainly not scared to vocalize their annoyances and issues.

SECTORS

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- FOOD - NO FOOD
- PHARMACEUTICAL

The holistic viewpoint I mentioned earlier doesn't just encompass the packaging element of the project, it must also consider the current operational and business landscape too, where operational data and connectivity are an absolute necessity.

Digitally operated, digitally connected

In this regard Cama is a world leader in its deployment of Industry 4.0 technology and splits its capabilities into five primary pillars:

- Digital Twin & simulation, virtual commissioning
- Digital Twin & augmented reality
- Smart devices, connected machines and system integration
- Edge computing, data analysis and connectivity
- Machinery predictive maintenance

The Digital Twin & simulation, virtual commissioning include advanced tools for marketing and sales, estimates and demonstrations of complex systems, project risk reduction through feasibility studies, and reduced development time for software programming and commissioning. The digital twin and process simulations can also be shared with marketing and, of course, with the customer and then exploited for virtual commissioning and FAT procedures.

Augmented reality gives operators the ability to overlay machine schematics and animations, along with instructions and information essential for training, improving operations, undertaking tooling changeovers and performing guided maintenance activities, with the core goal of reducing downtime to an absolute minimum.

Smart capabilities

Smart devices, connected machines and system integration provide the real operational value, including high-level line performance monitoring, production data collection, recipe and orders management, and product traceability. By offering full connectivity from field level, through control, supervision and management levels, all the way up to the enterprise, seamless data flow allows companies to make instantaneous line-side decision and modifications, based on real-time operational data.

Smart devices also deliver the capability to embrace the capabilities of edge computing – the fourth pillar, where we are working on creating an additional layer between the machine (control) layer and the factory (supervisory layer), which will allow customers to aggregate output from the field level and turn it into data that delivers more significant information to the higher levels. This information can be exploited for both security and intellectual property purposes as well as being used to collect historical information for analytics, trend reporting and predictive maintenance, where the data can be collected in historian packages for shift and day-based analyses, to spot trends and anomalies.

Setting the pace in packaging techniques and technology

From a hardware standpoint our machines excel too. Our Breakthrough Generation (BTG) concept is setting the standard in secondary packaging, with machines that deliver modular, scalable frameworks that offer easy entry and access, coupled to a hygienic machine design. Within this framework, contemporary automation solutions, including advanced rotary and linear servo technology, are tightly coupled to in-house-developed robotics, to deliver the all-important flexibility and adaptability required by modern packaging operations. We are also an OEM partner for Rockwell Automation, so control-level familiarity in North America is never a problem.

In the crowded world of retail shelves, shelf ready packaging is often referred to as a silent salesperson. It goes beyond simply housing and protecting a product; it's a strategic tool that can significantly impact sales and brand perception. So it makes sense to employ the best possible people, knowledge, tools, and machines for the job; and nowhere is this combination in better supply than at the Cama Group.

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ALine E - An in-line labelling system configured to apply two front and back labels to rectangular and elliptical shaped products.

- Integrated management via PLC, with Industry 4.0 and remote support.
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- Silent, modular conveyor with automatic synchronization.
- Digital positioners on all adjustment handwheels, with recipe format values available from the control panel.
- Perimeter base, with over structure for system rigidity and internal lighting.

INDUSTRY 4.0

Innovation or conservation? These philosophies are apparently opposite and irreconcilable. The former promises superior performance and new features. The latter guarantees the reliability and practicality typical of tried and tested solutions.

ALTECH is committed to both innovation and conservation in our labelling machines. Each of them contains the most innovative technologies, but it is also the result of design refinements based on 30,000 acceptance tests. Thanks to such technical expertise, we are able to state that every labeller we offer is not only state-of-the-art, but it is also user-friendly, functional, and reliable.

An example? Our ALline E system.

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AL TECH
Advanced Labelling Technologies

ALTECH AT PACK EXPO CHICAGO 2024

After attending numerous trade fairs all over the world featuring its products, ALTECH is now preparing to participate directly in the most important international exhibition for packaging machinery and materials: **Pack Expo 2024**, to be held in Chicago **from 3 to 6 November**.

The event is enjoying a consistent growth trend which will see the participation of thousands of exhibitors, as well as welcoming tens of thousands of visitors each year from over 100 countries across all five continents.

ALTECH aims to pique their interest by presenting a collection of innovative labeling machines which are able to provide a full solution to any self-adhesive labeling requirement. Specifically, the following solutions will be on show:

- An ALline E in-line front and back labeling system for elliptical and rectangular products, equipped with a new automatic format change system.
- An ALcode P system for printing and applying labels on two faces of a pallet.
- An ALbelt system, with ALritma labeling heads, for applying labels to the top and bottom sides of trays.
- An ALritma X labeling head, ALTECH's top-of-the-range model, which can achieve a speed of 1,000 labels per minute, with continuously accurate labeling even at variable speeds.
- A real-time print-apply system for moving boxes, equipped with an innovative, extremely flexible application device, suitable for labels of different dimensions.

All ALTECH systems feature modular design, making them extremely flexible and expandable. ALTECH will be delighted to welcome visitors to its **stand N-6338**, **North Building** to show them the high level of efficiency of its Italian-made products and to help them choose the best solution for each of their labeling requirements. All with the transparency and professionalism which have made ALTECH a leading Italian brand around the world.

www.altech.it

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- PACKAGING
- LABELLING
- FOOD - NO FOOD

GSP - PACKAGING MACHINES AND AUTOMATIC PACKAGING SYSTEMS

General System Pack builds and supplies packaging machines and automatic packaging systems, distinguishing itself with its advanced technology and extremely high quality standards.

The packaging lines produced by General System Pack are electronically managed, extremely sturdy, durable, and simple to operate and are built adopting solutions that aim to meet the most stringent ergonomic and hygienic demands. The wide range of models which General System Pack offers provide excellent flow pack solutions for every packaging sector, including automatic feeders and end-of-line equipment, ranging from controlled atmosphere to high speed, all the way to maximum levels of automation. The packaging lines offered are the best solutions for small and medium enterprises that wish to provide industrial-style packaging for their products.

GSP 50 EVO

GSP 65 BB

GSP 75 EVO

general system pack

The following are several examples of packaging machines and automatic series:

GSP 55 EVO: Electronic packaging machine, versatile and reliable, extremely flexible when it comes to changes in format, perfect for food and non-food products, for both single servings and multi-packages. It is characterised by a cantilevered structure and ease of accessibility, as well as its hygienic standards, simple maintenance, and built-in safety.

GSP 65 BB: Horizontal electronic packaging machine for long term heat sealing, designed to create hermetic bags in a controlled atmosphere for products that are more challenging to transport or that require extreme caution and zero shocks during transport and insertion in the film. It is the perfect solution for increasing the shelf life of food products, while also providing a bag that is aesthetically pleasing and able to provide good mechanical protection to the contents.

GSP 50 EVO: Highly technological horizontal electronic packaging machine: a fast, easy-to-use, and versatile machine that is capable of combining high technology and an excellent quality-price ratio.

Visit: **www.gsp.it**

SECTORS

- FOOD
- BIOMEDICAL
- HARDWARE

CMC PACKAGING AUTOMATION PARTNERS WITH MONDI

to pioneer sustainable eCommerce packaging solutions

- **Strategic Partnership:** CMC Packaging Automation names Mondi as the preferred kraft paper partner for their packaging machines.
- **Sustainable Innovation:** Joint efforts to bring sustainable and cutting-edge paper solutions tailored for CMC machines to the eCommerce market.
- **Market Impact:** Aiming to revolutionise eCommerce packaging on demand with sustainable, efficient, and cost-effective solutions.

Mondi, a leading global supplier of sustainable paper and packaging, and CMC Packaging Automation, a global leader in fully automated packaging on-demand solutions, are proud to announce their strategic partnership. Mondi has been designated as the preferred kraft paper partner for CMC machines, marking a significant step towards the most sustainable and efficient paper products tailored for CMC's state-of-the-art packaging systems. The collaboration between CMC and Mondi will focus on developing cutting-edge packaging solutions that leverage the unique strengths of both companies. This partnership is set to deliver significant customer benefits, including enhanced product quality and improved sustainability.

Luigi Russo, General Manager of CMC Packaging Automation.

Silvia Hanzelova, Sales Director Speciality Kraft Paper of Mondi.

Innovating for a Sustainable Future

This collaboration is dedicated to meeting the demand for sustainable eCommerce paper and packaging solutions. By building synergies between CMC's cutting-edge packaging on-demand technology and Mondi's prowess in sustainable kraft paper products, the partnership is primed to disrupt the market with innovative packaging alternatives. "We are thrilled to join forces with Mondi, a company that shares our unwavering commitment to sustainability and innovation," expressed Luigi Russo, General Manager of CMC Packaging Automation. "This partnership enhances our machine performance and enables us to provide our customers with responsible and sustainable eCommerce packaging solutions that meet the highest performance requirements and standards. After successful trials with Mondi kraft paper on our machines, we are confident in its exceptional runability, ensuring our customers receive a seamless and efficient solution."

Optimised Performance and Environmental Responsibility

Mondi's extensive array of top-tier paper products (such as Advantage eCom Kraft, EcoVantage eCom Mailer Pro and EcoVantage eCom Mailer) is meticulously crafted to seamlessly operate on CMC machines, ensuring peak performance and efficiency. The collaboration is laser-focused on crafting packaging materials that curtail environmental impact and enhance the overall packaging process.

"It's an honour to become CMC's preferred paper partner," said Silvia Hanzelova, Sales Director Speciality Kraft Paper of Mondi. "Our joint efforts will focus on creating innovative kraft paper solutions that support the circular economy and meet the needs of the eCommerce sector. Together, we can drive significant positive change in the packaging industry, combining our in-depth technical kraft paper knowledge power and our partner CMC's long history of machine expertise."

A Shared Vision for a More Sustainable Tomorrow

The partnership between CMC Packaging Automation and Mondi underscores a shared vision of a more sustainable future. By leveraging their combined expertise and resources, both companies are poised to set new standards in the eCommerce packaging market, offering solutions that are not only sustainable but also highly efficient and cost-effective.

www.mondigroup.com

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GSP 50 S
electronic horizontal
pillow pack
wrapping machine

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general system pack

TECNO PACK: DEVELOPMENT AND STRATEGY TO REACH NEW GOALS

Over three decades have passed since the early 1980s, when, in a small building on the outskirts of Schio, two enthusiastic and passionate technicians began tinkering with several used packaging machines with the intention of getting them back into working order.

This type of activity was known as “revision”, a term that has become extinct in this world of “disposable” products.

It was through the continuous process of disassembling, replacing, modifying, and testing these ageing machines that the two ultimately decided to develop the new and modern flow pack packaging machines.
In 1985, the first packaging machines from the newly established Tecno Pack company were introduced on the market and immediately received a favourable reception from clients.

Thus began the company’s long journey, a company whose priority is to respond in a timely and professional manner to the increasingly stringent demands of the market, courageously and determinedly embarking on the challenging path of automatic packaging systems.

These were years of hard work, sacrifice, and ongoing research, as well as of achievements and growth.

Meanwhile, Tecno Pack moved to a new location, in the Schio industrial area, which was better able to handle the company’s growing and changing logistical and production needs.

In 2011, operations moved to a new facility occupying over 6,000 square meters, still located in the traditionally industrious town of Schio, since the second half of the 19th century nicknamed “the Little Manchester of Italy”.

Machine after machine, system after system, the story continued with the inevitable intertwining of professional and personal events that never undermined the company’s corporate ideological continuity, which was supported through the years by a constant investment

SECTORS

- LABELING
- CODING
- COSMETICS

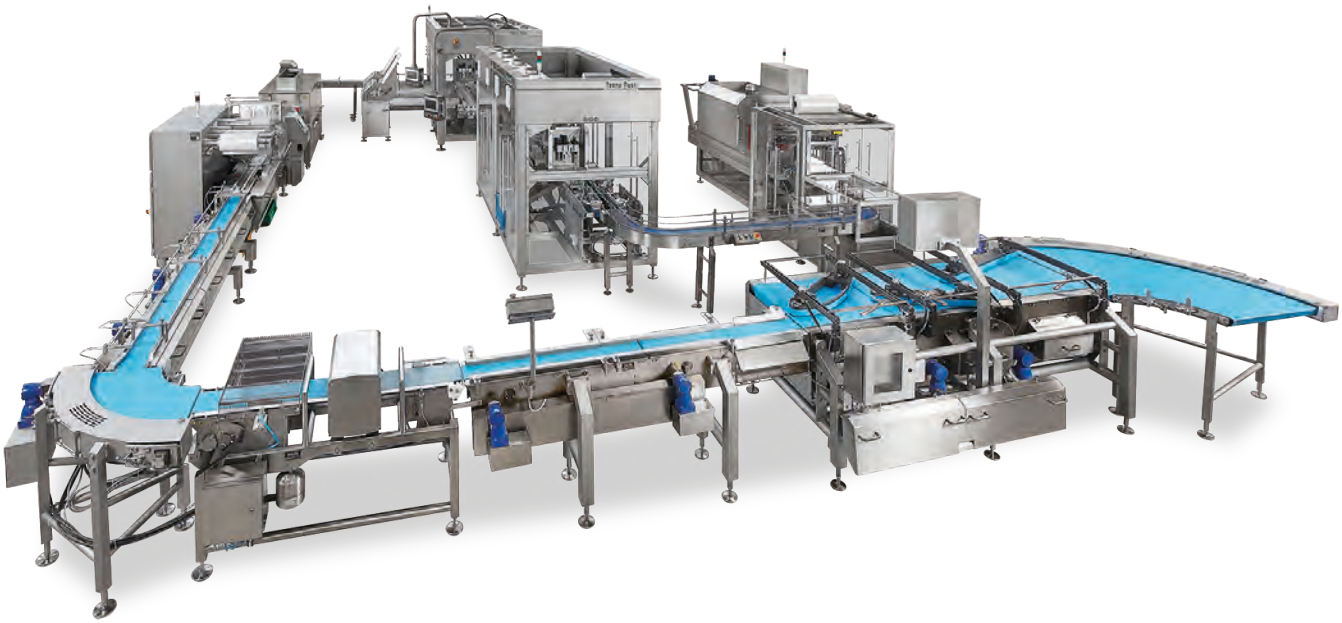
in and commitment to research and innovation.

This generated the success which allowed Tecno Pack, during these years of continuous growth and development, to purchase and revive three companies and see them flourish: General System Pack, IFP Packaging, and Euroimpianti.

Thanks to their global technological portfolio, the group of Schlio companies is now recognised as a world leader in the packaging industry, providing a global solution that covers everything from product manufacturing to packaging, at every stage. Their automated solutions, tailored to each individual client company, integrate primary, secondary, and tertiary packaging, as well as palletizing.

Today, the world of small and medium-sized industry that relies on the Tecno Pack group can benefit from the experience and technology that the company has developed over decades with all of the major global food groups which, by renewing their trust each day, continue to fuel ongoing research and development.

www.tecnopackspa.it



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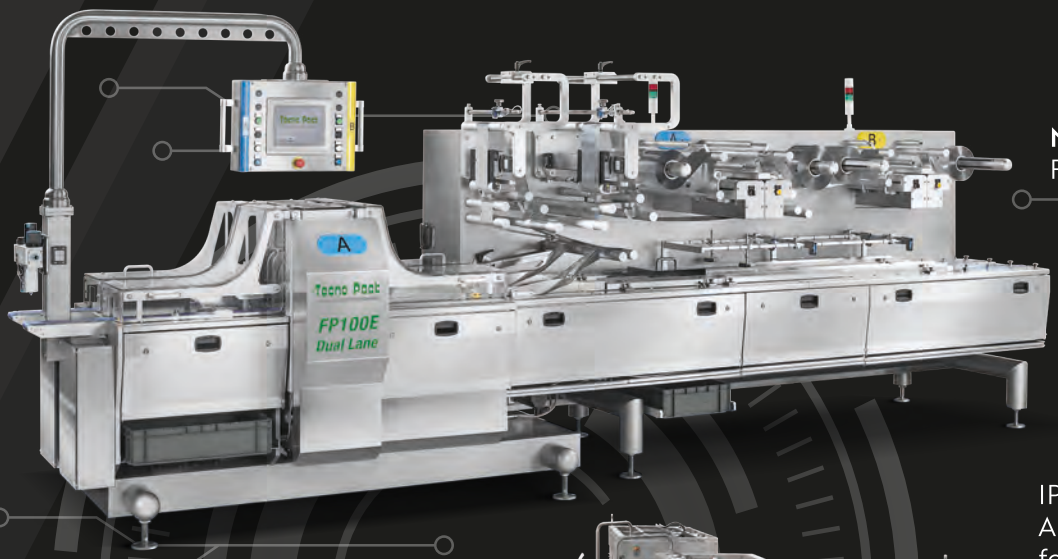
Let's talk about the future



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Tecno Pack
PACKAGING MACHINES

LABOR IN THE PACKAGING SECTOR? A REAL LUXURY

Finding qualified workers is becoming more and more exhausting. With demographic changes, the changing needs of new generations, and jobs becoming more or less attractive, the "skilled labor shortage" is a certainty worldwide. To handle this, strategies and a good dose of creativity are needed.

by ***Elisa Crotti***

You don't need deep insights to understand that the lack of workers in manufacturing has become a real emergency. In the packaging sector, two factors make companies less attractive: it is less appealing compared to other fields, like the IT sector, and environmental issues related to the strong impact of packaging on sustainability. Whatever the cause, the shortage is very real and it's a global trend.

Some Alarming Data

The Global Talent Crunch report by the American company Korn Ferry talks about a shortage of 85 million workers worldwide by 2030.

The deficit is almost everywhere: in the United States, there are nearly 11 million job vacancies, Europe is struggling to fill over 1.2 million open positions, and employers in Australia are trying to fill 400,000 jobs. In Singapore, there are 163 job offers for every 100 available candidates.

The manufacturing and supply chain sectors are hit hardest by the shortage. In the United States, there could be over 2 million unfilled manufacturing jobs by 2030, while manufacturers in the United Kingdom are facing the biggest labor shortage in the last 30 years. The

All images: freepik.com

reasons vary by region, including gaps in technological skills, an aging population, low wages, and changes in migration patterns. It's a real challenge.

Automation: A Possible First Response

Automation is certainly a response to the lack of workers; however, the packaging sector still has a long way to go.

Although there have been good advancements in automation and the use of digital technologies in pre-press and printing stages, there is still a lot to improve, especially in post-printing operations. As a result, the pressure is greater in these areas, and the shortage of workers is felt more acutely.

This is also because people today are less willing to do physically demanding tasks and work in shifts.

This trend is evident, for example, with packaging technologists who, once qualified, prefer roles related to packaging development, design, or quality control rather than production, and they are also moving towards sales.

Some Tools to Be More Attractive

While good pay is definitely important to attract qualified workers, it's also true that it's no longer the only factor that matters.

New generations also value other factors, such as a pleasant and fulfilling work environment, flexibility, and opportunities for learning and professional growth. Additionally, smart, easy-to-use digital tools that make work more enjoyable are highly appreciated. Offering a stimulating and technologically advanced environment can make a difference.

Therefore, investing in cutting-edge digital tools, like machines with touchscreens, AI-based automation, and intuitive software, makes work more pleasant and engaging, better meeting the expectations of new generations.

Training Employees to Fill Multiple Roles within the Company

Although cross-training does not directly increase the number of employees, having a group of qualified workers within the company makes a difference. Changing customer demands can cause temporary fluctuations in production.

Thanks to cross-training, qualified employees can be moved from one line to another or from one department to another to handle these production changes. This type of training helps ensure that the company can quickly adapt to changes in production or demand by shifting staff as needed.

Collaboration with Universities, Colleges, and Vocational Schools

Another way to grow and attract current and future

employees is to establish professional relationships with local universities, schools, and training centers.

Programs can be designed to set up internships for young people interested in specific careers; additionally, part-time jobs can be created for students.

This is an immediate advantage, but also opens up new possibilities because, over time, many of these temporary workers gain experience and skills, potentially becoming long-term resources.

Being Open-Minded

There are many alternatives to find more resources, ranging from internal efficiency to unconventional approaches and creative thinking.

For example, employer branding involves promoting the image of a company that cares about employee well-being and is committed to sustainable practices.

This helps attract workers who value these things. Targeted marketing campaigns on social media can tell an engaging company story, highlighting values, technological innovations, and growth opportunities. Creative paths are endless and offer that unique and attractive element that can make a difference.

In the Short and Medium Term

In the short term, the need is for recruiting, while in the medium term, a talent acquisition strategy is needed.

This strategy should include several steps, from analyzing company needs to defining roles and their requirements, from searching and attracting talents to selecting candidates and onboarding them.

The last step, onboarding, is very important because companies don't get a second chance to welcome new workers properly: this is true for small, medium, and large companies alike.

As the saying goes, you never get a second chance to make a good first impression.

Looking to the future, tactics and strategies are needed because there's no turning back: by 2030, the scenario is clear.

IMA
Sustain Ability

WELCOME TO THE
IMA EVER-EVOLVING SYSTEM

A journey through vision, technologies and values.

PACK EXPO CHICAGO 2024

Booth S-2514
Chicago, IL
November 3rd - 6th

IMA AT PACK EXPO 2024: DISCOVER THE IMA EVER-EVOLVING SYSTEM

At Pack Expo 2024, IMA presents itself as an ever-evolving system — integrated, technological, and innovative — bringing together all its production entities in a single, unified stand.

"Growth, diversification, tradition, innovation, sustainability, the world of work, teamwork, the centrality of people, the virtuous local area, university and training, harmony with the territory, reliability, and quality in customer service. These are the pillars of the IMA system." — Alberto Vacchi, IMA Chairman and CEO.

The IMA EVER-EVOLVING SYSTEM at Pack Expo 2024 unites IMA production entities, creating a technological and innovative environment for our processing and packaging solutions through to the end of line, in the Pharmaceutical, Medical Devices, Food, Personal Care, and E-Commerce industries.

The booth's design will reflect the Group's development philosophy, emphasizing the key role of sustainability in process and product design — a fundamental combination for IMA: respect for the environment and

SECTORS

- PHARMACEUTICAL
- FOOD
- PERSONAL CARE

advanced technology. We will showcase solutions for the markets in which the Group traditionally operates, as well as those in newly entered markets. Space will be given to new acquisitions, cross-company synergies, and the latest innovations:

- **Pharma**
  IMA Pharma is a world leader in the design and manufacture of automatic machines and complete lines for the processing and packaging of pharmaceutical and nutraceutical products thanks to a high technological profile and the ability to offer tailor-made solutions to satisfy the most sophisticated requests of the market, thanks to its highly specialised divisions: IMA Active (Solid Dose Solutions), IMA Life (Aseptic Processing and Freeze-drying Solutions) and IMA Safe (Packaging Solutions).
- **Medical Devices Assembly:** IMA AUTOMATION, a division of the IMA Group and a market leader in the design and manufacture of advanced technological lines for the handling and assembly of parts for various application fields, announces the creation of IMA MED-TECH, a new Business Unit entirely dedicated to medical assembly technologies. This represents a significant step forward in the IMA Group's strategy to consolidate and enhance its presence in the MedTech sector.
- **Food**
  Tea & Coffee, Savoury, Preserves & Condiments, Beverage & Baby Food, Dairy & Cheese, Meat & Poultry, Produce, Bakery & Biscuits, Chocolate, Confectionery & Snacks, , Dressings & Sauces
- **Personal Care**
  Thanks to the numerous specialized companies within the Personal Care hub, IMA offers complete lines for any type of product required in the sector. IMA provides comprehensive technologies for processing liquids, creams, powders, and solids, aligning with trends towards sustainable products with reduced water and packaging use.
  The portfolio includes converting technologies for facial masks and wet wipes, advanced filling and sealing machines for tubes, jars and bottles, as well as flow wrappers and forming, filling, and sealing solutions for sachets and stand-up pouches. IMA's automation technologies enable the assembly of caps and multi-part devices, while the secondary packaging range includes flexible cartoning machines for any product shape and size, single and multiple item wrappers, and final case packers and palletizers. Labelling systems designed for all surfaces and package types complete the packaging solutions, supported by a professional worldwide service network.
- **E-Commerce Packaging Solutions**

The booth will also feature the Digital Hub, dedicated to the IMA Digital project, and an area focused on the Group's sustainability initiatives.
IMA END OF LINE personnel will be present at the show to discuss customized strategies and provide expert insights on optimizing packaging processes. At the IMA EOL HUB, we specialize in comprehensive solutions for the secondary and end-of-line stages of product packaging across industries such as pharmaceuticals, personal care, food, and home care. Every product is handled with precision, and tailored approaches are developed to meet the specific needs of each project while maintaining the highest performance standards.

MACHINES ON SHOW

Machines on show for the pharmaceutical sector:

- **DYNAMICA - Continuous motion cartoner**
  DYNAMICA Series multipurpose continuous motion cartoner is available in different versions, according to the product specifications, carton dimension sizes and speed. It grants the maximum versatility in terms of applications, infeed systems and carton sizes
- **UNILINE - Integrated counting system**
  UNILINE is a conveying, filling and capping system that flexibly integrates the functions required to form a complete counting line: container loading, desiccant insertion, counting and filling, cotton insertion, capping, rejection.
- **BETA – Vertical intermittent motion sachet machine**
  BETA Series ensures high performances thanks to the advanced technology developed. Benefit from the maximum flexibility in terms of configurations and production outputs to find the best solution for your goals.
- **HYPER - Labelling machine for vials and bottles**
  HYPER is the ultimate labelling solution created to achieve the impossible. Fully modular and implementing the latest technologies for high-speed labelling, it handles all container materials and shapes.

Machines on show for the food sector:

- **PETRONCINI TTA25 – Coffee Roaster**
  With the same technical features of industrial drum roasters, the TTA25 is a unique fusion between full process reproducibility and customisation of the roasting profiles, even for small productions. The TTA25 roaster is available for trials at IMA Coffee's ShowLAB, the laboratory showroom set up at IMA North America production site.
- **DOYTRONIC 120 – High speed stand-up pouch machine**
  Innovative Pouch FFS machinery with unrivalled compact design thanks to vertical intermittent bag forming and horizontal filling stations with hybrid movement.

- **PEREGRINE and CARRERA 1500 - Line composed of Pouch feeder and Flow wrapper**
  The Peregrine Platform is a range of unscrambling, singulating and feeding solutions for a wide variety of products including pre-packaged items that need taking from bulk and delivering correctly orientated and pitched to a downstream piece of equipment or process. At the show the system will be feeding a Carrera 1500 flow wrapper, which responds to the budget, build quality and flexibility requirements of mid-range food operations.
- **VISION 3000 - Vision based counting solution**
  By means of a combination of laser and line scan cameras, Vision 3000 guarantees accurate checking and counting operations to verify product height, length, width and surface.
- **F600 - F600 – Vertical Forming, filling and sealing of sachets**
  The vertical form, fill & seal machine F600 for sachets guarantees easy-to-use packaging for liquid and pasty products such as dressings & sauces. It offers the perfect solution for convenience packaging.

Machines on show for the E-Commerce sector, displayed on booth S-2814 owned by our partner Intertape Polymer Group® Inc (IPG). Together with IPG, we showcase a complete and effective E-Fulfillment line, including packaging technologies and protective solutions:

- **E-CO Flex Forming – Automated Case Erector and Former**
  The E-CO Flex Forming is a standalone machine designed to automatically pick, erect, and form right-sized cases for products to be packed. Case selection is based on information retrieved from the customer's Warehouse Management System (WMS). The E-CO Flex Forming accommodates a wide range of case footprints, handling up to 12 different sizes.

- **E-CO Flex SealMatic - Automatic Random Case Sealer**
  The E-CO Flex SealMatic is a fully automatic machine designed to process FEFCO 201 and SIOC cases. The machine automatically tapes the bottom of the case, while the top is closed and sealed with water-activated tape. SIOC cases are automatically detected and bypassed by the machine.

Machines on show for the Medical Devices sector:

- **X-PEN – Advanced Injectables Assembly Solutions**
  X-PEN is the new modular platform designed by IMA MED-TECH for the assembly of injectables, based on a standard concept for pens, autoinjectors and needle safety devices final assembly systems.

GREEN SOUL, DIGITAL BRAIN

Sustainability and digital transformation are now interconnected, each playing a vital role in driving positive outcomes for both businesses and the environment.

About Digitalization on Show

At the Show, cutting-edge digital technologies for industrial production will be showcased, with a focus on artificial intelligence (both traditional and generative) to enhance efficiency and sustainability.

Predictive AI models will provide insights into connected machines via dedicated dashboards, reducing downtime, improving product quality, and optimizing resources.

A highlight will be the industrial metaverse, a virtual space where production plants can be tested in advance and operators trained remotely through VR, streamlining processes and cutting costs. In addition to AI and the metaverse, the Show will feature advanced platforms for plant management, continuous performance monitoring, and digital training tools.

The synergy between sustainability and digitalization, including virtual reality, will drive IMA's innovation, leading to a more efficient and responsible future.

About Sustainability on Show

The technologies showcased will include machines from the LOW (Low emissions) and NOP (No Plastic) projects, dedicated respectively to reducing energy consumption and researching eco-friendly and recyclable packaging materials.

Additionally, IMA will present a portion of its OPENLab at the show — a scaled-down laboratory illustrating the analysis and research on packaging materials conducted by the IMA Group's worldwide network of laboratories.

Thanks to our Experts in the OPENLab on display, customers can bring their own packs or materials for comprehensive consulting and analysis.

Zero Waste. Zero Liner. Zero Complexity. Zero Downtime. I am Zero: The ultimate Print&Apply solution designed by IMA Phoenix Innovation Center to provide a renewed hi-tech experience during Direct Thermal (DT) Linerless Labeling.

The red passion for labeling solutions meets the green attitude of a "zero" use of silicon liner.
Zero offers clear print, extraordinary adhesion, and clean cut with the past.
The Future is Zero!

INDUSTRIAL SYSTEMS FOR PRODUCT **LABELLING** AND **DISPENSING** MORE THAN 100 SOLUTIONS FOR THE **PACKAGING** INDUSTRY

Technologies that meet the most advanced market sectors requirements through diversification.

etipack PLASTICS

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labelling, coding, caring

CARTON BEVERAGE PACKAGING: AN ECOLOGICAL CHOICE OR A CONVENIENT SOLUTION?

by Our Editorial Team

In recent years, the food industry has seen a significant increase in the use of carton packaging for beverages

This trend, driven by growing environmental awareness and consumer pressure, has led many companies to reconsider traditional materials. However, the question remains: is carton packaging truly an ecological solution, or is it simply a convenient and practical choice?

Carton packaging has undeniable advantages. It is lightweight, easy to transport, and often recyclable, making it appealing to beverage producers. Moreover, modern technologies allow carton to be treated so that it becomes liquid-resistant and capable of adequately preserving the contents, extending their shelf life without compromising

product quality. However, the main advantage frequently highlighted is its supposed environmental sustainability. Carton, derived from renewable sources such as cellulose extracted from trees, is recyclable, presenting it as a more ecological alternative to plastic or glass, both of which have a more significant environmental impact in terms of production and disposal.

But behind this image of sustainability lies a more complex reality. While it's true that carton is recyclable, its production requires enormous resources. The process of extracting cellulose and processing paper consumes large amounts of water and energy, and the forests from which the raw material is sourced are not always managed sustainably. Certainly, certifications like FSC (Forest Stewardship Council) ensure responsible forest management, but not all producers subject themselves to such scrutiny. Additionally, once carton is combined with layers of plastic or aluminum, as is often the case with beverage containers, its recyclability drastically decreases. Separating these materials once they are fused together is a complex and costly process, and not all recycling facilities are equipped to handle it.

Another aspect to consider is transportation. Carton, being lighter than glass and less bulky than rigid plastic, helps reduce CO2 emissions during the distribution of beverages. This aspect is particularly important when considering the overall environmental impact since logistics represent a significant portion of a product's lifecycle. Reducing the weight and volume of packaging means fewer trips are needed to transport the same amount of product, with tangible benefits in terms of greenhouse gas emissions. However, even in this case, the benefits only materialize if the entire lifecycle of the packaging, from its production to disposal or recycling, is managed efficiently and sustainably.

There is also the economic factor, which plays a crucial role in companies' decisions. Carton is generally cheaper to produce than glass or rigid plastic, making it an attractive solution not only from an ecological standpoint but also from an economic perspective. For many companies, choosing carton means being able to reduce costs without sacrificing product quality while presenting themselves to consumers as environmentally conscious brands. This marketing strategy, often supported by slogans that emphasize the "green" nature of the packaging, has strong appeal for modern consumers, who are increasingly concerned about the sustainability of the products they purchase. But it's fair to question how much of this choice is truly driven by the desire to reduce environmental impact and how much is simply a response to market trends.

Finally, we cannot ignore the behavior of the end consumer. Even the most eco-friendly packaging becomes useless if not disposed of correctly.

Despite awareness campaigns, recycling rates remain low in many countries, and a large portion of packaging ends up in landfills or, worse, littered in the environment. Therefore, it is crucial that companies not only invest in more sustainable packaging but also commit to educating consumers on how to properly dispose of these materials.

In conclusion, carton packaging for beverages represents a solution that, at first glance, seems to meet environmental sustainability needs. However, the reality is more nuanced. While carton has undeniable advantages over other forms of packaging, its benefits largely depend on the context in which it is produced, used, and disposed of. It is a choice that, if well managed, can contribute to reducing the environmental impact of the beverage industry, but it should not be considered the definitive solution. Real change will only occur when the entire lifecycle of packaging is designed with sustainability in mind, from the sourcing of raw materials to the recycling or disposal phase.

UNIVERSAL PACK: INNOVATION AND SUSTAINABILITY DRIVE THE TRANSFORMATION OF THE ITALIAN PACKAGING LEADER

Universal Pack, an Italian leader in the stick pack and sachet packaging machinery sector, is undergoing a significant transformation towards sustainability.

Founded in 1965, the company has always placed innovation at the core of its strategies, now combining this vision with more eco-friendly practices.

Recently, Universal Pack collaborated with major suppliers from different sectors (food, pharmaceutical, nutraceutical, cosmetic and chemical) to develop compostable and recyclable films, ensuring optimal product protection and perfect compatibility with their machines.

SECTORS

- PACKAGING
- PHARMACEUTICAL
- FOOD

This process required extensive research and development, leading to the creation of advanced solutions for the sustainable packaging market.

The company has also set an ambitious waste recovery goal, aiming for 95% by 2025, after already achieving 91.7% in 2022.

To reach these milestones, Universal Pack is upgrading its technologies, replacing outdated machines with cutting-edge technology, and improving energy efficiency through the use of low-consumption motors.

Additionally, the company is planning to build a new facility designed to be a net-zero energy building, equipped with advanced technologies and powered by renewable energy.

This new facility not only responds to the company's growth but also represents another step towards a sustainable future.

www.universalpack.it

UNIVERSAL-PACK®

Science in Packaging

VOLPAK AT PACK EXPO 2024: NEW TAILORED SOLUTIONS FOR PHARMACEUTICAL & HEALTHCARE PACKAGING

Volpak, a Coesia company renowned as a market leader in HFFS pouching machinery, will be exhibiting at the international Pack Expo 2024 in Chicago (Hall South N.S-2501), taking place from November 3 to 6. During the event, Volpak, through its brand Enflex, will present two machines specifically designed for the pharmaceutical, healthcare and personal care markets: The Enflex F-17 and the new Enflex PH-28, making its global launch in Chicago.

By participating in the 2024 edition of Pack Expo, Volpak reaffirms its commitment to the U.S. market, which continues to experience growth, especially in the pharmaceutical sector. According to Statista's data, the pharmaceutical packaging market in North America is projected to grow at a compound annual growth rate (CAGR) of 4.65% over the next five years, reaching a value of over $800 billion by 2029*. growth is driven by increasing demand for innovative solutions that ensure safety, and compliance with strict regulations. In this direction, Volpak, through its Enflex brand, specialized in pharmaceutical packaging solutions, is crafting an innovative portfolio designed to meet the ever-evolving needs of this expanding market.

At the same time, the pouches produced by Volpak machines are also an optimal choice for a wide range of industries, thanks to their ability to ensure extended shelf life, ease of transportation, and easy sealing.

The company can offer increasingly sustainable packaging solutions thanks to Volpak's in-house laboratory, the PouchLab. This lab is an innovation center where new

materials and packaging solutions are developed and tested in collaboration with clients and partners. This approach allows Volpak to design machines capable of processing eco-friendly packaging materials, including mono-materials that significantly improve the sustainability of packaging processes overall. The two machines to be presented at Pack Expo Chicago, the Enflex PH-28 and Enflex F-17, are designed with a focus on performance, quality and flexibility.

Enflex PH-28: High pouch integrity for Pharmaceutical Industry

The new Enflex PH-28 represents an advanced solution designed to meet the specific needs of the pharmaceutical sector. This machine is specially designed to excel in dosing fine pharmaceutical powders, yet it is versatile enough to handle liquids, tablets, and pellets. The PH-28 has several key features, including a dust extraction system and a specialized pouch opening mechanism to prevent dust contamination. It also offers ample space for integrating Track & Trace systems, coders, and cameras, ensuring full compatibility with advanced tracking technologies. Additionally, the Enflex PH-28 is fully compliant with 21 CFR Part 11 regulations, meeting the strict standards for electronic records and signatures in the pharmaceutical industry.

A key advantage of the PH-28 is its compatibility with recyclable mono-materials, a crucial aspect for pharmaceutical companies striving for sustainability

The machine has been optimized to ensure airtight sealing of pouches and superior quality of the final packages, minimizing the risk of contamination. Additionally, the PH-28 is equipped with a hygienic auger filler that complies with GMP standards, ensuring precision and safety in packaging operations. Last but not least, the new PH-28 is built with special lights to make it easier for operators to see; it has an improved scissor system, and special sealing bars to prevent overheating.

Enflex F-17: Flexibility and Reliability for Personal Care products

The Enflex F-17 embodies the perfect blend of flexibility and reliability, specifically designed to meet the growing demands of the personal care industry. It is ideal for producing shaped pouches for liquids and creams, making it an excellent solution for

the cosmetics market. The solution is specifically designed to form, fill, and seal flat pouches and is expertly engineered to produce shaped flat pouches for cosmetic and personal care applications. Additionally, the F-17 offers extra space to accommodate optional equipment, such as printers, labelers, and cameras. It is also prepared to work with 100% recyclable materials, both in the film and in various components like caps, highlighting Enflex's commitment to sustainability and innovation.

This machine works in both simplex and duplex modes, offering the capability to install two different dosing systems, making it highly adaptable to various production configurations. With a maximum production capacity of 180 pouches per minute in duplex mode, the F-17 stands out for its efficiency and production speed. Its intuitive HMI interface simplifies operation, enabling quick and easy format changes, or production check-ups even for less experienced operators. In addition, the machine supports a wide range of pouch formats, ensuring maximum versatility to meet each client's specific needs.

Volpak SM+: A Modular Solution for Major Production Requirements

Volpak's commitment to innovation drives the development of groundbreaking packaging solutions, and the new SM+ is a prime example. The SM+ is a highly versatile and scalable packaging platform designed to adapt quickly to varying production needs. It offers the flexibility to adjust the machine's configuration based on factors such as pouch size, type of closure, and pouch style.

The SM+ excels in versatility, allowing manufacturers to seamlessly switch between different pouch styles and product types, thus catering to diverse packaging requirements. Its scalability ensures that the machine can be reconfigured on the fly to meet evolving market demands and production needs. Additionally, the SM+ supports late customization, efficiently managing small batches of various SKUs with minimal waste, even when programmed on a daily basis.

Inverted Pouch is still evolving.

This innovative spirit also led us to develop and improve packaging that adapts to the changing needs of the market. At Volpak, we not only design innovative machinery, but also new packaging. After launching the first inverted pouch on the market with Daisy (the STANDCAP pouch), we have continued to innovate in this category and reinvented traditional packaging for sauces, dairy, personal care and household products.

The Inverted Pouch is back, more renewed than ever: Easy to empty, clean and attractive to make your brand shine!

www.volpak.com

VOLPAK
a coesia company

WATSON-MARLOW TO SHOWCASE CERTA SINE PUMPS AT PACK EXPO 2024

Visit Booth LL-10219 to view diverse product range for food and beverage

Watson-Marlow Fluid Technology Solutions (WMFTS) is showcasing its diverse product range for food and beverage applications at PACK EXPO 2024, the packaging and processing show. PACK EXPO 2024 will be held at McCormick Place in Chicago, Illinois from November 3-6. Visit booth LL-10219 to see WMFTS' range of Certa Sine pumps and meet specialist engineers who will be able to share insight and product performance data.

Used in many stages of food and beverage processing; from unloading raw material to a storage tank, through transfer to a mixer/agitator/reactor/cooking vessel, to final transfer to the filling line, Certa pumps maintain yield and increase output.

The Certa Sine technology delivers high suction capability to handle viscous products, offering significant advantages over alternative technologies. Unlike traditional pumps with rotors that cut through the fluid, Certa's sinusoidal rotor gently carries fluid through the pump to dramatically reduce shear, while cutting power consumption by up to 50 percent with high viscosity fluids. With 3A certification as standard, users can be assured that chocolate, cheese curd, soft fruit, sauces and pie fillings are pumped without degradation.

Additionally, the Certa Compact offers the same celebrated product features that customers will be familiar with from the existing Certa Sine™ pump range but with a more flexible and simplified design that saves valuable assembly time and cost for an integrator during the installation project.

Also on display will be the Aflex FaBLINE hose, a food-grade flexible hose developed to meet the latest hygiene standards. The patented PTFE-lined hose with standard 316 stainless steel braid ensures efficient product transfer and handling while simultaneously offering longer life than rubber hose alternatives.

In addition, the Qdos range of chemical metering pumps and the Bredel heavy duty pumps offer reliable and cost-effective performance for water and waste treatment in a wide range of food and beverage processing plants and applications. Both Qdos and Bredel pumps are designed to work without high-cost ancillaries like back pressure valves, seal-water flush systems, or run-dry protection.

www.wmfts.com

MINI MOTOR REVOLUTIONIZES FORMAT CHANGEOVER INTRODUCING FCL, THE INNOVATION ALIGNED WITH THE FUTURE

Mini Motor, Italian leader company in the field of innovative solutions and mechatronics, integrates electronics and computer science into its motors, designed to adapt to the needs of a constantly evolving market such as industrial automation and motion control.
The company, with over 55 years of experience and an extensive network of distributors, is currently present in over 50 countries with branches in Europe, the USA, and the United Arab Emirates, in order to reach an ever-increasing number of companies worldwide with its innovations.

The latest marvel from Mini Motor is called FCL (Fast Change Linear), and is the ideal solution for **linear format changes**.

Designed to adapt to all applications that require a linear type of format change, it's available in two versions, both 100 and 200 mm of extension range, applicable both vertically and horizontally.

This solution is especially suitable for machines that require frequent format changes, such as the movement of sides and barriers in the adjustment of belts within machine flow.

FCL is made to last over time, thanks to the care and attention used in materials choice: the shaft is stainless steel and is IP 65 classified, therefore dust and water protected.

It can push up to 200 newton of force and supports 5 kg on fully extended shaft, thus ensuring high-level performance.

SECTORS

- INDUSTRIAL AUTOMATION
- FORMAT CHANGEOVER

But the real strength of FCL, like all products in FC family, lies in its **versatility** and **technological innovation**. Equipped with the most common field buses for connectivity, it can also be integrated with Mini Motor's new COA (Can Over Air) wireless technology.

Mini Motor offers the possibility to adapt FCL to the specific operational needs of customers, providing **customized response** to the most complex challenges, as an added value to the product.

With FCL, Mini Motor does not just offer a quality product, but proposes an integrated solution, that can meet the most different needs and increase efficiency and productivity by reducing machine downtime.

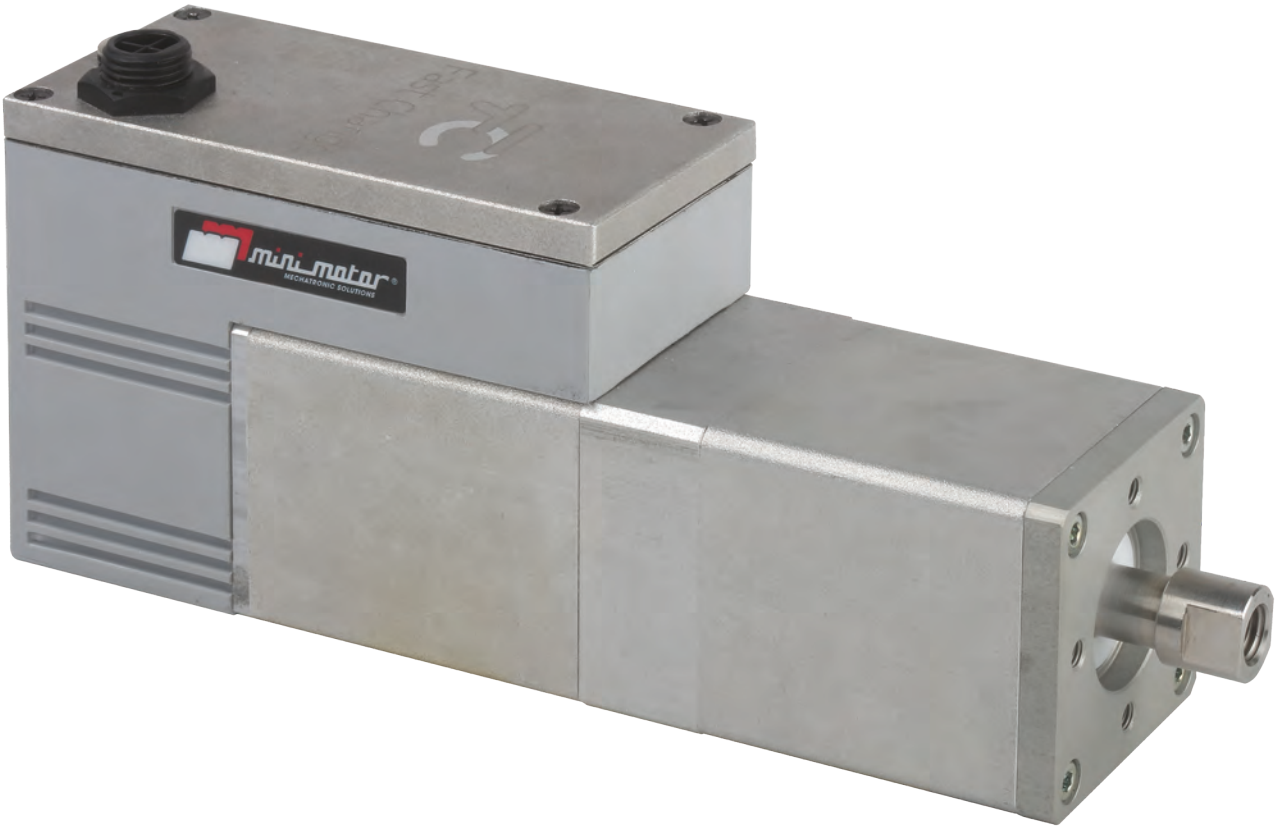
This product joins the range of the FC rotating format changeover.

A real revolution in the world of format change, which once again confirms the company's commitment to innovation and customer satisfaction.
A commitment that, as demonstrated by FCL, shows no limits.

www.minimotor.com

FCL
Fast Change
Linear

mini motor®
MECHATRONIC SOLUTIONS



SMART PACKAGING: TECHNOLOGY AND IOT AT THE SERVICE OF LOGISTICS

by Walter Konrad

In recent years, the concept of "smart packaging" has gained traction in the industrial landscape, redefining the traditional role of packaging. It is no longer just about protecting the product but integrating advanced functionalities that monitor its condition during transport and storage. This new approach, made possible by the introduction of technologies such as the Internet of Things (IoT) and smart sensors, is transforming supply chains in key sectors such as food, pharmaceuticals, and retail, aiming to improve logistics efficiency, reduce waste, and ensure product safety.

Smart packaging combines the use of traditional materials with advanced technologies capable of collecting, processing, and transmitting data in real-time. This system allows for monitoring a series of critical parameters, such as temperature, humidity, impacts, or package opening. Such information can be sent to a central management system, enabling operators to intervene promptly in case of problems.

A prime example is food packaging. Many products, especially fresh or frozen ones, need to be kept at controlled temperatures during transport. With the use of integrated temperature sensors, it is possible to verify

All images: pexels.com

that the cold chain is never interrupted. This reduces the risk of spoilage and ensures that the product reaches the final consumer in optimal conditions.

The Internet of Things has played a key role in the development of smart packaging. Thanks to networks of connected devices, it is possible to create an ecosystem where every package "communicates" its location and condition in real-time. This allows for more efficient management of logistics flows, with significant advantages in terms of traceability, control, and resource optimization.

A concrete example of IoT application in packaging can be found in the pharmaceutical sector, where product safety and integrity are of utmost importance. Some medications require specific temperature and humidity conditions to maintain their efficacy. With smart systems, pharmaceutical companies can constantly monitor their products during transport and storage, intervening promptly if anomalies occur.

Moreover, packaging equipped with IoT technologies can be used to enhance the customer experience. Some manufacturers are experimenting with solutions that allow the end consumer to access detailed product information via an app by scanning a QR code on the package. This approach not only improves transparency but also strengthens the trust between the brand and the customer.

Another crucial aspect of smart packaging is its ability to reduce waste. By constantly monitoring transport conditions, the number of damaged or discarded products can be reduced. This is particularly important in the food sector, where food waste represents a global challenge. Smart packaging, by providing real-time alerts about any changes in storage conditions, can prevent product spoilage, reducing economic losses and environmental impact.

Additionally, many smart packaging solutions are designed to be recyclable or reusable, aligning with the growing demands for sustainability. The adoption of smarter packaging not only improves operational efficiency but also helps reduce the overall environmental impact of supply chains.

Despite the numerous advantages, smart packaging faces some challenges. The initial cost of IoT technologies and sensors can be high, especially for small and medium-sized enterprises. However, costs are gradually decreasing thanks to the widespread adoption of these technologies and continuous advancements in electronics. Additionally, the integration of such solutions requires a reorganization of logistics processes and adequate staff training.

Another challenge concerns data security. Since smart packaging collects and transmits large amounts of information, companies must ensure that this data is protected from potential cyberattacks. Cybersecurity, therefore, becomes a crucial aspect of managing these new solutions.

Despite these challenges, the future of smart packaging looks promising. Ongoing technological innovations and the growing demand for more efficient and sustainable solutions are pushing companies to invest in these technologies. In particular, the food and pharmaceutical sectors are proving to be the most receptive, thanks to the tangible benefits in terms of safety and waste reduction.

Smart packaging represents one of the most exciting frontiers for the logistics and manufacturing industry. By combining IoT technologies and advanced sensors, packaging is becoming a real tool for managing and controlling the supply chain. While there are still obstacles to overcome, the opportunities offered in terms of efficiency, sustainability, and safety are immense. The challenge for companies will be to find the right balance between technological investment and economic return, fully seizing the benefits of packaging that is finally becoming "smart."

BW PACKAGING INTEGRATES COMPLEMENTARY FILLING AND CLOSING BUSINESSES

The new BW Filling & Closing division presents multiple benefits to customers of the former Pneumatic Scale Angelus and Synerlink divisions

BW Packaging, a global leader in packaging machinery, today announced the creation of BW Filling & Closing, its new division which brings together the strengths of Barry-Wehmiller's legacy filling and closing businesses, Pneumatic Scale Angelus and Synerlink. The newly combined business will work toward seamlessly integrating the legacy organizations' products and services while also laying a foundation for additional benefits for its customers, including future improvements to its global support and services, and upholding the high standard of product quality its customers have come to expect.

The creation of BW Filling & Closing will unlock new potential for innovation with its combined product portfolio of Pneumatic Scale, Mateer and Hema fillers; Angelus, Continental/Closetech and Hema seamers; Arcil form-fill-seal (FFS) lines; Dairy Pack fillseal (FS) lines; Burt labelers and Zepf Solutions change parts, container handling and storage solutions. Additionally, BW Filling & Closing will continue to support legacy brands from the former Pneumatic Scale Angelus and Synerlink organizations as part of its longstanding commitment to offering lifetime support for every solution.

"The creation of BW Filling & Closing allows us to purposefully align our teams to better meet the needs of our global customers with focused product value streams, set up to enable food and beverage manufacturers to win," said Rachana Creeth, Group President of BW Packaging.
To lead the new division, BW Packaging has appointed Greg Wolf as President of BW Filling & Closing. Wolf brings more than 30 years of global capital equipment and leadership experience to his new role. Previously, Wolf provided leadership for companies including John Bean Technologies (formerly FMC Technologies), Gerber Scientific, BHS Corrugated and Brown Machine Group, where he served as President and CEO.

"I am honored to lead this new organization, which has been created through the combination of two organizations with strong brands and legacies of success," said Wolf. "BW Filling & Closing is fortunate to have capable leaders and a talented team driving us towards even greater achievements in service of our customers and stakeholders."

Since the summer of 2023, Wolf has worked closely with Bill Morgan, former President of Pneumatic Scale Angelus, and Jean-Félix Lesueur, former President of Synerlink, to shape a single market-leading filling and closing business at Barry-Wehmiller. Morgan and Lesueur will serve

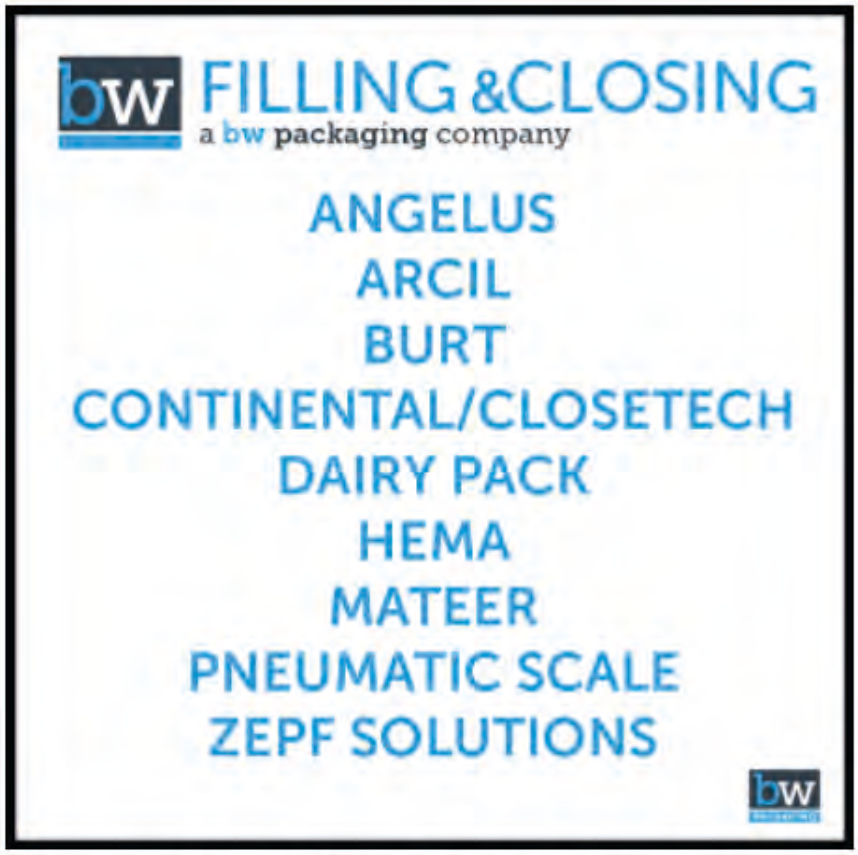
SECTORS

- PACKAGING
- LABELING
- FOOD

in critical leadership roles within the new BW Filling & Closing organizations. Morgan will be the President of the four value streams, focusing on aligning products and optimizing performance across multiple manufacturing sites. Lesueur will be the Executive Vice President for the EMEA and APAC market teams, stewarding the commercial efforts in these regions.

"The entire BW Filling & Closing team is committed to leveraging both technical and commercial innovation to better serve our customers," said Wolf. "We are also planning investments in our global sales and service channels to drive growth and expand our reach."

BW Filling & Closing is one of three divisions — alongside BW Flexible Systems and BW Integrated Systems — which together comprise BW Packaging, Barry-Wehmiller's packaging machinery group. With a global footprint spanning 25 countries, BW Packaging is distinguished by its commitment to the performance of its products, integration services, sustainable offerings and lifetime support for every solution.



BW Packaging's new BW Filling & Closing division will integrate its former Pneumatic Scale Angelus and Synerlink divisions.

ABOUT BW FILLING & CLOSING

BW Filling & Closing is best known for its portfolio of leading food and beverage packaging machine brands including Pneumatic Scale, Mateer and Hema fillers; Angelus and Continental/Closetech seamers; Arcil form-fill-seal (FFS) lines; Dairy Pack fill-seal (FS) lines; and fill-seal (FS) lines; Pneumatic Scale cappers and Burt labelers; as well as Zepf Solutions for change parts, container handling and storage solutions. With more than 20 global locations spanning six continents, BW Filling & Closing offers unparalleled local support for every customer.

ABOUT BARRY-WEHMILLER

Barry-Wehmiller is a diversified global supplier of highly engineered capital equipment and consulting services for a wide variety of industries. By blending people-centric leadership with disciplined operational strategies and purpose-driven growth, Barry-Wehmiller has become a $3.6 billion organization with more than 12,000 team members united by a common belief: to use the power of business to build a better world. CEO Bob Chapman shares the story of the company's transformation in his book, Everybody Matters: The Extraordinary Power of Caring for Your People Like Family. To learn more, go to barrywehmiller.com.

www.bwpackaging.com

bw PACKAGING
a barrywehmiller company

KOROZO GROUP AND BOREALIS COLLABORATE TO CREATE LAUNDRY DETERGENT PACKAGING THAT IS DESIGNED TO BE RECYCLED

Korozo Group and Borealis collaborate to create laundry detergent packaging that is designed to be recycled

Henkel's laundry detergents are now being sold in packaging produced by Korozo Group (Korozo) that is designed to be recycled and constructed with the European Packaging and Packaging Waste Regulations (PPWR) in mind.

This project has seen the creation of mono-material films that initially feature 30% PCR. The PCR content was supplied by Ecoplast, a member of the Borealis Group. Borealis is one of the world's leading providers of advanced and sustainable polyolefin solutions. The polymers were in turn extruded by Korozo into mono-material constructions for Henkel's laundry detergents, such as Persil. Printing and converting of the packaging were carried out by Korozo on its high-end presses and pouchmaking lines. Products sold in these packs are already on shelves in Central Eastern Europe.

Borealis Ecoplast's high-quality LDPE recycled materials are ISCC Plus and EuCertPlast-certified, guaranteeing that the recycled content can be tracked and traced throughout the value chain. The specific grade used to make the packaging for Henkel was Borcycle™ CWT100VL. The grade offers a very low gel level resulting in a very high optical and printing quality enhancing shelf appeal and delivering mechanical properties for product safety.

PPWR includes requirements for minimum recycled content in plastic packaging, as well as targets for all packaging in the EU market to be recyclable. Specifically, PPWR will require 35% PCR in recyclable films by 2030. By commercialising a product that is already manufactured with 30% PCR content, Korozo is well-positioned to deliver packaging to brands that is tailored to the requirements of PPWR.
As a result, the films now being used by Henkel's consumer brands are a 'major milestone' in the journey towards the circular economy.

Fatih Imre, Technical Account Manager, Consumer Packaging, at Korozo Group, said: "We're delighted to have contributed our expertise as a global leader in flexible packaging to the creation of this innovative, circular solution. Collaboration throughout the value chain is essential to delivering sustainable packaging solutions and transitioning to a circular economy.

"Brands need solutions they can rely on, and consumers want straightforward options that enable them to be more sustainable. Mono-material packaging that is de-

signed for recycling is the answer to both of these needs."

This is further evidenced by previous work involving Korozo and Henkel. This has included the creation and use of recyclable mono-material PE pouches for toilet rim blocks and dishwasher tablets. In the case of the WC Frisch toilet rim blocks, the pouches equated to a 75% reduction in material use and needed a third fewer trucks on the road for transportation, when compared to a standard single pack.

The laundry detergent project has been recognised in the first-ever PAGÇEV Plastics Recycling Awards, with Korozo awarded in the Plastic Packaging and Packaging Materials Category. It has also been nominated in the Crescents and Stars for Packaging Competition 2024, organised by the Turkish Packaging Manufacturers Association (ASD). The winners in that competition are to be announced shortly.

"Such a level of recognition confirms and celebrates our commitment to innovation and sustainability," said Selin Bahar Mesulam, Non-Food Flexibles Unit Director at Korozo Group.

"We thank Henkel and Borealis for their collaboration and our incredible team for their hard work to make this accomplishment possible."
Fatih added: "Our sustainability policy is guided by an awareness that the planet and its natural resources belong to society as a whole and future generations. This successful transition represents a milestone in the journey away from fossil resources and towards a circular economy."

Korozo Group, Borealis and Henkel will present the results of their latest collaboration at the Sustainability in Packaging Europe conference, taking place 8-10 October in Barcelona, Spain.

Korozo Group is also exhibiting at FachPack 2024 across 24-26 September in Nuremberg, Germany. On stand 343 in hall 4, the company will showcase a number of sustainable flexible packaging solutions.

www.korozogroup.com

KOROZO GROUP

IN WHAT WAYS IS CUSTOM PACKAGING CONTRIBUTING TO A SUSTAINABLE FUTURE?

In what Ways is Custom Packaging Contributing to a Sustainable Future?

In times when sustainability is not just a buzzword but an obligation, industries globally are reconsidering their practices to minimize the carbon impact on the earth. The packaging industry is at the vanguard to innovate and use technology, and customer needs to shift to ecologically friendly options.

Here, custom packaging sets its foot as a crucial catalyst to devise sustainable and personalized alternatives that satisfy customer choices, enhances brand image and carbon reduction targets. On this path, we will discover various ways custom packaging assists in creating a sustainable future.

Resource Preservation with Customized Approach to Packaging

Efficiency and custom packing go hand in hand. Material wastage is reduced by accurately personalizing the packaging measurements to fit the product. The old-style packaging method leaves the customer with extra materials, which leads to redundant dumping that could have been avoided. Here comes custom packaging, which cuts down on the surplus and sustains the resources and the overall ecological impact.

- In December 2023, the Amazon Prime Packaging program was launched, allowing businesses to create customized product packaging. Businesses focused on delivering sustainable packaging options to cut down their carbon footprint.

The potential to design packaging accurately allows producers to use materials sensibly. Through calculated design and material choice, custom packaging attains the same level of security with lower exhaustion of resources. This cut-down curtails production costs and aids in diminishing the impact on natural resources.

Custom Packaging Adopting Recyclable Substance for an Earth-conscious Future

Custom packaging permits the incorporation of recyclable materials and designs to put forward recyclability and biodegradability as the essential factors. By using materials like recycled cardboard, bioplastics, or compostable films, custom packaging promotes the transformation inclined for a sustainable economy. By easing out the separation method, consumers are facilitated to take part actively in recycling plans.

- Alder Packaging, a pioneer sustainable beauty packaging firm headquartered in Los Angeles, collaborated with Axilone USA, a luxury cosmetic packaging manufacturer, to

Future Market Insights

present environment-friendly luxury packaging choices in February 2023. The organizations aim to strengthen greener packaging production in the cosmetics sector in accordance with the alliance.

- A startup that keeps consumer education forward is Ecologi. Ecology has devised a subscription service where consumers can compensate for their carbon footprint and sanction funds for reforestation projects. They also provide information to assist customers in making ecologically aware choices, like tips on curbing waste generated by packaging.

Custom Packaging – A Catalyst to Educate Consumers on Environmental Footprints

Custom packing boxes are an avenue to make consumers aware of sustainability activities. The brands can attract customers with creative designs, informative labeling, and QR codes guiding to sustainability practices of the firm. This packaging promotes awareness and understanding and authorizes consumers to make informed decisions and bolster environmentally-safe strategies.

- Packhelp raised a capital of US$ 45.6 million in investment in November 2021 to strengthen its tailor-made packaging organization. Owing to the advent of e-commerce and on-demand delivery, Packhelp has helped small startups or producers pack their products in alluring customized packaging, and big titan industries like H&M and Uber Eats.

According to market research from Future Market Insights, the demand revenue of custom packaging boxes is predicted to be US$ 9.0 Billion by 2032. The custom packaging boxes market reflects a moderate CAGR of 4.70% during the forecast period.

- Robinson Plc collaborated with Holdsworth to assist in the production of sustainable boxes for the chocolate products range in September 2021.
- Another startup, called Ecovative Design, makes packaging materials by making use of mushroom mycelium. These environmentally friendly materials are made using agro-waste and are formed into different shapes and sizes to be molded into various packaging requirements. Once the packaging is used for the purpose fulfillment, it is then composted and returned to the soil nutrients.

Deconstruction and Reuse – A Blueprint for Sustainable Consumption

An essential norm for sustainable packaging is tailoring it for dismantling and reuse. Custom packaging allows the blend of modular designs, resealable attributes, and easy-to-separate materials, aiding in the reuse of the packaging post-consumption. By stretching the packaging lifespan and diminishing single-use wastage, custom solutions cater to a justifiable package lifecycle.

- Loop is a company that collaborates with major brands to provide reusable packaging for daily use products. Customers buy products in durable, refillable storage containers, which can be later on cleaned and reused. This model cuts down the use of single-use packaging.

Response of Custom Packaging to Regulatory Adaptation

Regulatory outlook and consumer choices as carbon-neutral or environment-friendly are constantly in transition. This type of packaging supports the resilience required to reconcile with these alterations rapidly. Be it development towards substitute materials, assimilating new labeling necessities, or rebranding packaging configurations. Custom solutions certify brands to lead in regulatory authorizations and customer requirements.

- C-P Flexible Packaging, for a confidential sum in August 2021, acquired Fruth Custom Packaging and its ancillary, Cleanroom Film, and Bag (CFB). The possession aids C-P in proliferating its West Coast footprint and packaging expertise for electronics, biopharmaceuticals, medical devices, and semiconductors.

Custom Packaging as a Stimulus for Holistic Environmental Assessment

A thorough understanding of the whole lifecycle of packaging is crucial to evaluate its environmental impact. The inclusion of life cycle assessment (LCA) principles at the design stage is made easier with custom packaging. Custom solutions aid organizations in making data-driven decisions that curb the environmental impacts along the value chain by accounting for variables such as procurement of materials, manufacturing techniques, transportation, and end-of-life situations.

Final Remarks

Custom packaging is a centerpiece as we are moving toward a sustainable future. The packaging industry is set to curtail its global carbon footprint by inclining towards resource efficiency, consumer engagement, and recyclability.

To gain an extensive adoption of sustainable and customizable packaging solutions, collaborative steps from manufacturers, policymakers, retailers, and consumers will be required. Custom packaging is optimistic for a greener, healthier, more eco-conscious tomorrow through actions like ongoing innovation, education, and promotion.

Ismail Sutaria, the Principal Consultant for the Packaging Sector at Future Market Insights (FMI), comments, "On the trip towards a zero-carbon future, custom packaging is the pathfinder of innovation, nudging us that every eco-cautious choice we make in the present is a seed we sow for a promising future."

www.futuremarketinsights.com

INNOVATIONS IN PHARMACEUTICAL PACKAGING: TECHNOLOGY FOR PATIENT SAFETY

From blister packaging to RFID technologies, the pharmaceutical industry is constantly investing in research and development of new packaging solutions to improve the quality of life for patients. This article explores the latest innovations in pharmaceutical packaging that are improving the safety and efficacy of medications.

image: pexels.com

In recent years, the pharmaceutical industry has made significant strides in the research and development of technologies and innovations in product packaging. This has allowed for the improvement of medication safety, efficacy, and ease of use for patients.

One major breakthrough in pharmaceutical packaging is blister packaging, which offers a secure and effective solution for the distribution of medications, particularly those that require precise dosages. Blister packaging can be made from various materials such as PVC, aluminum, or PET, and can be easily sealed to ensure product freshness and safety.

Other innovative technologies in pharmaceutical packaging include single-dose sachets and child-resistant bottle caps. Single-dose sachets provide a convenient and portable alternative to traditional bottles, while child-resistant caps ensure that medications are protected from any accidental incidents at home.

Digital printing and laser coding are also important innovations in pharmaceutical packaging, as they allow for important information such as active ingredients, lot numbers, and expiration dates to be directly printed onto containers, making it easier for patients and healthcare professionals to identify products.

by our editorial team

New packaging materials have also been developed to improve the stability of pharmaceutical products. These materials are designed to withstand extreme environmental conditions, such as humidity, light, and temperature, ensuring that medications remain stable and safe for use during transport and storage.

Finally, the use of Radio Frequency Identification (RFID) technology is becoming increasingly widespread in pharmaceutical packaging. This technology allows for real-time tracking of products during distribution and storage, ensuring that medications reach patients in the safest and most timely manner possible.

Overall, it is evident that research and development of technologies and innovations in packaging are essential in ensuring the safety and efficacy of pharmaceutical products.
These innovations allow the industry to provide high-quality solutions that improve the health and well-being of patients, making the future of the pharmaceutical sector increasingly promising.

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PERSPECTIVE

PERSPECTIVE of NVC NETHERLANDS PACKAGING CENTRE on Draft IENW/BSK-2022/263822 by Ms. VLWA Heijnen MSc.

NVC NETHERLANDS PACKAGING CENTRE

This PERSPECTIVE comprises three parts:

1. Introduction of association NVC and its position on packaging and environment
2. Analysis of packaging and environment over the period 2013-2022
3. Policy recommendations for the year 2023 and beyond

1. Introduction of NVC and its position on packaging and environment

Every second, the world packs some 320,000 products - and the world's population unpacks them later and in a different location. NVC was founded in 1953 and now unites over five hundred companies with an interest in continually improving packaging. The NVC membership includes retailers, packaging suppliers, machine suppliers, branded article manufacturers, pharmaceutical companies, companies in the chemical industry, packaging printers, co-packers, design agencies, recyclers, testing institutes, and so on.

NVC supports its member companies by providing them with up-to-date and reliable business information, by jointly carrying out innovation projects, by educating and training their employees in packaging and by 'matching' supply and demand in the market ('market support').

Specific to packaging and environment, these include the following activities:

a. Inform member companies of global legislative and regulatory developments through the NVC Members-only Environment Regulations Guide MERGE
b. The NVC Workshop Sustainable Innovation in Packaging (Live Online, so 100% interactive and participation possible from any location worldwide)
c. The PUMA Project towards the end of packaging as an environmental problem (see the enclosed PUMA MANIFESTO and all background information at: www.nvc.nl/puma)
d. Stimulating innovation in the sector by scouting new techniques and linking supply and demand through exhibitions, conferences and the NVC online Buyer's Guide

NVC works with a 'holistic' vision to improve the activity of packaging, obviously in the Netherlands but especially also on an international scale, given the structural developments in the actors involved in packaging, like the raw material suppliers, the packer-filler industry, the logistics and the retail.

***NVC** has played an active role in the development of European (CEN) standards in the field of packaging and packaging waste since 1994 resulting from the European Packaging and Packaging Waste Directive of December 1994. Thanks in part to NVC's initiative and its active role in the standards development itself, the world (ISO) standards in this area were published in 2012. Photo: the plenary meeting of the ISO working groups on 6 May 2011 in Atlanta USA at the Coca Cola headquarters.*

***The PUMA MANIFESTO** has now been published in nine languages (Dutch, English, French, Italian, Korean, Japanese, Chinese, Spanish and Portuguese). The German-language edition will be published on Wednesday 3 May 2023 during the PUMA World Conference in Düsseldorf, Germany. From 4-10 May 2023, the world's largest packaging exhibition with more than 100,000 visitors will take place there: the interpack2023. NVC will promote the results of the PUMA World Conference there from a dedicated stand (ENB/03) at the Main Entrance North.*

NVC is not a 'vertical' trade association, like, for example, FNLI (the umbrella organisation of the food industry in the Netherlands) or CBL (the trade association of Dutch supermarkets) or NRK (the federation of plastics and rubber manufacturers). As such, NVC's primary tasks are therefore not to 'lobby' the central government to promote specific industry interests. However, we do appreciate maintaining good contacts in this regard.

NVC communicates 'across the board' via NVC News and in the various social media. The NVC website attracts about sixty thousand unique visitors annually (about 60% of whom are based outside the Netherlands). Some thirty thousand professionals and organisations located worldwide follow NVC daily via social media, especially Twitter and LinkedIn.

NVC is worried about the state of affairs regarding packaging and the environment in the Netherlands and worldwide in 2022. The first European legislation on packaging and packaging waste dates back to December 1994(!) and we are now on the eve of the year 2023. In the meantime, a proposal for follow-up legislation was launched by the European Commission on 30 November 2022: the Packaging and Packaging Waste Regulation PPWR.

As a society and industry, we unfortunately have to conclude that the problems have clearly not been solved over the past 29 years. On the contrary, they seem to have actually gotten worse. Why is this? What can we learn from the past and how can we all do better in the future? How do we end packaging as an environmental problem? You can find this NVC basic position in our PERSPECTIVE on the Draft Decision of the Minister.

2. Analysis of packaging and environment over the period 2013-2022

The first significant European legislation on packaging and the environment dates from December 1994: the European Packaging and Packaging Waste Directive. At that time, the Netherlands already had the Packaging Covenant, with the actor on the industry side towards the central government being the Stichting Verpakking en Milieu SVM. There came a Second Covenant in the Netherlands, with SVM.PACT (Project Administration Covenant Two) as the implementing organisation, and the European Directive was transposed into Dutch law in the year 1997.

With the Extended Producer Responsibility EPR comes a financing system for collection and recycling. After an 'interwar period' in which the central government started levying a Packaging Tax, the Packaging Waste Fund Foundation StAV took office in the year 2013. In conjunction with - and paid for by - the StAV, several other foundations came into being, each of which started working in a subfield.

To be mentioned in this context is the Knowledge Institute for Sustainable Packaging Stichting KIDV. This organisation has the Stichting StAV as its only client, with the mutual performance agreement being confidential. Over time, the pricing for specific materials (plastics) by Stichting StAV has been linked to whether or not they comply with Recyclechecks to be drawn up by KIDV. The operational relationship between Stichting StAV and Stichting KIDV is characterised by intensive personal ties (the former Stichting KIDV director is now Stichting StAV director).

To address litter, the Stichting Nederland Schoon SNS was set up. Its funding was originally linked to the moderated introduction of deposit fees on specific types of emptied packaging. April 2022, the Stichting StAV presented a plan to collect a whole range of 'deposit-fee sensitive' emptied packs (bottles, cans) through a large number of 'circular hub' collection sites. The plan did not include a public cost budget and went off the table soon after presentation.

Now, after a legal joust and a three-month delay, deposit fees will be introduced across the full breadth of the relevant packaging spectrum on 1 April 2023. What are the costs going to be? The question also arises as to the usefulness of the continued existence of, or funding by, the Stichting StAV of the Stichting SNS.

Regarding the Stichting Nedvang, a different corporate form is envisaged for the coming years: a Private Limited Company (BV). This raises the question of the (future) ownership structure, including the financial allocation of any profits generated by this BV.

StAV's internal organisation comes up for discussion in a report by ILT Inspectorate[1] which audited the accounts for the year 2019. The report contains damning conclusions regarding the limited financial, accounting robustness of the organisation, including the remarkable way the auditor approved the StAV financial statements for the year in question. The question is, whether these criticisms have now been addressed and durably covered by the Stichting StAV.

The substantiation of the rates used by the StAV Foundation is also unclear, with sudden rate changes (/increases) of up to +1000% occurring in recent years[2]. There are concerns about the unsatisfactory substantiation of the proposed rates and about the possibility that the Stichting StAV, after having been granted the General Binding Declaration (AVV) by the Minister, has a free hand for five years to implement substantial and unexpected rate increases.

The accountability of the Stichting StAV and the policy structure it funds is also negatively discussed in a recent study by the University of Utrecht[3]. It analyses for various product categories, including packaging, the extent to which collection and recycling takes place in a transparent manner, with an unambiguous allocation of the various responsibilities. The situation for the packaging sector is outlined as unfathomable.

Finally, there are questions about the data available to the Stichting StAV in the context of its levies. To what extent are the personal and business data of the Dutch industry paying the fees shared with the Stichting KIDV, the Stichting Nederland Schoon and Nedvang BV - and then through these entities with third parties engaged by them (consultancies, lawyers, self-employed professionals, and so on)?

All in all, major concerns have grown at NVC over the past decade about the effectiveness of the policy structure around the StAV Packaging Waste Fund Foundation as set up in the year 2013 and legitimised by the central government. The concerns focus on two questions:

1. **What charges does the Stichting StAV want to charge, with what justification?**

2. **What environmental performance will be achieved by the Stichting StAV with these targeted levies?**

Question 1 has increased in importance now that there is talk of a possible tripling of the envisaged levy per Dutch company, while this was denied in so many words by a representative of Stichting StAV in an NVC members' meeting in early 2022. The foundation's draft multi-year budget is insufficiently conclusive. The foundation does not commit to the level of tariffs for the coming years. What will be the costs (revenues) of the introduction of deposit fees as of 1 April 2023? The basic organisational system costs (at €12.5 million a year equivalent to a workforce of 100 FTEs and significantly increasing) also lack substantiation.

[1] www.ilent.nl/actueel/nieuws/2022/07/08/afvalfonds-behaalt-recyclenorm-voor-2019-maar-de-onderbouwing-schiet-tekort
[2] www.afvalfondsverpakkingen.nl/nl/tarieven (other metals)
[3] studenttheses.uu.nl/handle/20.500.12932/518

Question 2 is almost even more important, especially now that the definition of 'recycling' is changing. A look at the Model in the PUMA MANIFESTO makes this clear. In fact, the 2013-2022 period looked at the amount of Collect-Control and not at the amount of 'newly usable, circular' materials actually created via a material recycling Backend process. Also, it is fundamentally flawed to exclude energy aspects from Collect-Control and Backend processing.

Essential for sustainable decision-making is the elaboration of the Circular Materials Plan (CMP1) promised by the Minister to be published by mid-February 2023, including an analysis of the desired material flows in the context of the Circular Economy of the Netherlands.

The NVC Survey The future of the packaging recycling in the Netherlands certainly will take into account the insights of the CMP1. The results of the NVC Survey will be presented on 5 April 2023.

Finally, an analysis of the timeframe leading up to the Draft AVV decision over the past twelve months. In the spring of 2022, we communicated our concerns to the Stichting StAV and on 11 May 2022 we met with the management. We had constructive discussions with various industries, the policy department of the Ministry, the Inspectorate and several Members of Parliament.

A total of over hundred NVC member companies actively participated in one or more of the NVC member meetings on the topic. NVC attended the parliamentary debates of the relevant Lower House parliamentary committee and actively shared the information with NVC member companies and the industry as a whole.

The Draft Decision with an intended entry into force of 1 January 2023, was published on 7 November 2022. Given the deadline for the submission of PERSPECTIVE by interested parties like NVC (six weeks, i.e. until 19 December 2022 at the latest) and the intended entry into force of 1 January 2023, the Minister has only a week and a half to make a decision. This is questionable for a dossier with an impact of at least €2 billion in costs for business and - in our view, much more importantly - with an obligation to future generations to now actually start making an end to packaging as an environmental problem in the Netherlands and worldwide.

Based on the above, one conclusion must unfortunately be that the policy structure in place since 2013 to manage packaging collection and recycling has serious shortcomings anno 2022. This entails significant risks for the Netherlands society, both in terms of costs in an economically turbulent period and in terms of (not) meeting environmental targets in a world where environmental issues rightly need to be addressed.

The decision-making on Draft Decision IENW/BSK-2022/263822 by Ms. VLWA Heijnen MSc., Minister for Infrastructure and Water Management, regarding a General Binding Declaration AVV of the levies by the StAV Waste Fund Foundation (Stichting Afvalfonds Verpakkingen) is a decisive benchmark in the context of the above.

3. Policy recommendations for the year 2023 and beyond

With regard to the Draft AVV Decree, we submit the following recommendations for the Minister's consideration. Of course, the Minister is free to adopt them entirely, partially or not at all. In all cases, we would appreciate receiving a motivation and will actively share them with our member companies and the sector as a whole.

1. Postpone your final Decision until 1 July 2023.
2. Include in your final Decision the insights from your CMP1 (to be published mid-February 2023) and ideally the results of the NVC Survey the future of the packaging recycling in the Netherlands 2023-2027 (results known 5 April 2023).
3. As a condition for a final Decision, ask the Stichting StAV for an analysis addressing the years 2023-2027 of the budgeted costs in relation to the environmental results. This analysis should also include the impact of the various Stichting KIDV recycling checks on costs and environmental results to be achieved.
4. In your final Decision, require the Stichting StAV to pre-determine rates for all years covered by the AVV.
5. As part of your final Decision, request disclosure of the performance agreement between Stichting StAV and Stichting KIDV including the annual reviews for the past years 2013-2022.
6. Engage Parliament prior to your final Decision, especially in the run-up to the public meeting of the Parliamentary Committee on IenW in the spring of 2023.

NVC NETHERLANDS PACKAGING CENTRE

Gouda, 14 December 2022

NVC NETHERLANDS PACKAGING CENTRE

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Sharing the future in packaging
www.nvc.nl

PACKAGING FOR EMTIONAL WELL-BEING

Quadpack created maple caps and collars, as well as fragrance roll-ons, for Sisley's neuroscience-based skincare brand Neuraé

Neuraé is a new brand from Sisley that connects skincare with wellbeing. Celebrating positive emotions, it focuses on joy, energy and serenity by way of a three-step routine. The neuroscientific collection is beautifully packaged in glass bottles and jars, adorned with maple wood caps and collars from international beauty packaging manufacturer and provider Quadpack, who also developed its gorgeous roll-ons, altogether forming an attractive range that appeals to all the senses.

Neuraé's formulas are composed of at least 95% ingredients of natural origin. The range comprises a serum and a choice of three face creams, complemented by roll-on fragrances it calls 'Emotion Boosters'. The routine is simple: reset the skin with the reharmonising serum 'harmonie'; apply the 'joie', 'énergie' or 'sérénité' face cream, according to the desired mood; and amplify with the matching fragrance.

The brand was clear about its packaging objectives, stating, "we aim to reduce our plastic footprint, using glass, recyclable plastic and wood." Quadpack's wood experts worked with Neuraé to select the right type of wood and finish. It chose maple for its clear surface and smooth, exquisite finish.

The collars and caps for the droppers, jars and roll-ons were custom-designed and manufactured at the Quadpack Wood factory in Spain, which is powered by renewable energy and a biomass plant running on production scrap. Sourced exclusively from sustainablymanaged forests, each and every wooden component is unique, with its own grain pattern. All the caps were branded using a careful process of laser engraving. The laser was meticulously calibrated to ensure superficial scoring, to avoid the typical burnt effect, with maple providing the perfect canvas.

The Emotion Boosters, in turn, are little gems that are the perfect size for on-the-go usage. The 6.5ml glass bottles were lacquered and decorated with one-colour silk screening. The roller ball applicator for each variant has a semi-precious stone: jade for énergie, pink quartz for joie and amethyst for sérénité. These, too, are topped with maple caps.

All in all, the natural wood, glass and semi-precious stones enhance the sensory appeal of the range, helping Neuraé on its quest to "cultivate beautiful skin together with wellbeing."

www.quadpack.com

QUADPACK

NEW PACKAGING MACHINE FOR UNISOL INSULATION MATERIALS

UNISOL SA in Greece has installed a state-of-the-art RoRo StretchPack® packaging machine for packaging insulation materials. This cutting-edge packaging solution, developed by Tentoma, ensures 6-sided sealed packaging.

The new packaging machine is now operational at UNISOL's premises in Patras, Greece. Its primary purpose is to package expanded polystyrene (EPS) insulation panels using a tubular stretch hood film. Notably, the machine features an infeed belt conveyor equipped with a pusher, allowing for efficient packaging of insulation panels in various sizes. During packaging, the UV-blocking stretch hood film is securely welded at both ends, providing comprehensive protection against dust, moisture, and UV exposure until end users unpack the panels.

About RoRo StretchPack®

RoRo StretchPack® is a film-saving packaging technology, ideal for the sealed packaging of larger products, rolls, and building materials. Utilising a tubular stretch hood film, RoRo StretchPack® achieves six-sided and 100% sealed packaging in a single operation. This horizontal packaging technology, developed by Tentoma A/S, draws upon the established technology used in vertical stretch hood packaging. Tentoma A/S, based in Denmark, installs and services RoRo StretchPack® packaging solutions globally.

For further information contact Tentoma at info@tentoma.com or by phone: +45 79 30 62 10

Read more about RoRo StretchPack® on

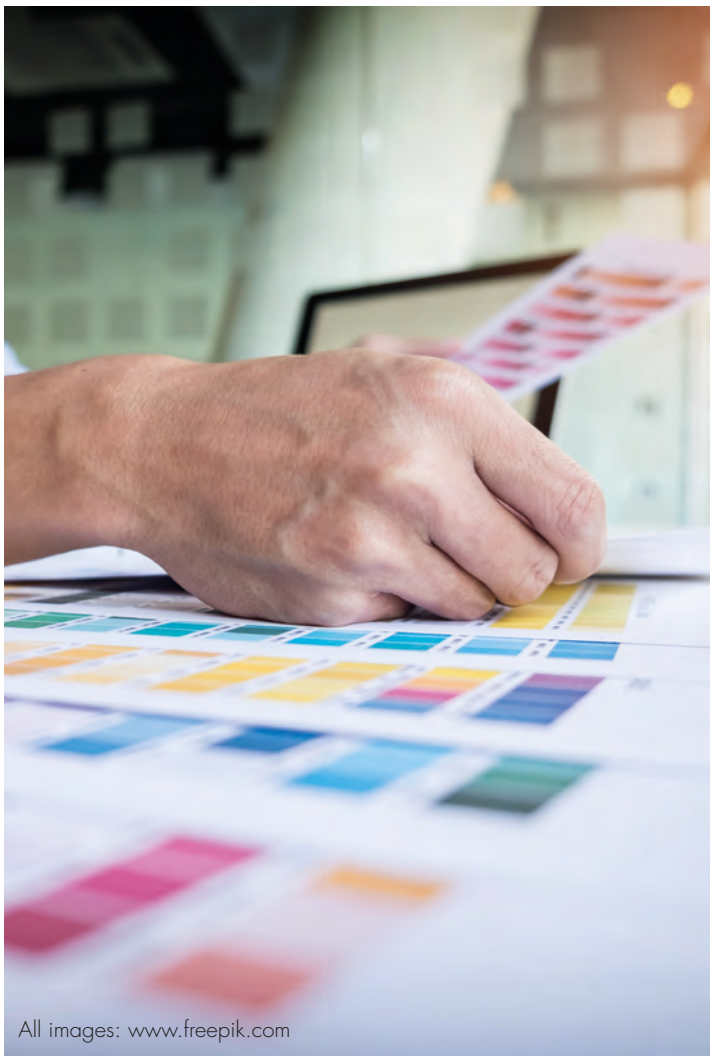
www.tentoma.com

Unisol EPS insulation panels with the new RoRo StretchPack® packaging.

THE EVOLUTION OF PACKAGING PRINTING: FROM TRADITIONAL TO DIGITAL, BENEFITS AND OPPORTUNITIES

Packaging printing has undergone a significant transformation in recent years, shifting from traditional to digital printing

By the editorial staff



All images: www.freepik.com

This change reflects the natural evolution of technology, but it is also a response to the changing needs of markets, companies, and consumers. The challenge of producing packaging that is appealing, efficient, and sustainable has become a priority for many industries. In this context, both traditional and digital printing play a role, with advantages and disadvantages that vary according to specific needs.

Traditional printing, with techniques such as flexography and offset, has historically dominated the sector. It offers low unit costs for large print runs and consistent quality, making it the ideal choice for mass production of packaging intended for products with long life cycles and standardized graphics. Flexography, for example, is highly efficient for printing on flexible materials like plastic films and paper, providing good value for products requiring large batches. Offset, on the other hand, has long been considered the “gold standard” for image quality, making it suitable for high-end packaging.

On the other hand, digital printing has brought about a revolution. It offers unmatched flexibility through the ability to customize each individual piece without significant additional costs. This ability to produce small-scale variants is perfect for

products with shorter life cycles or marketing campaigns that require differentiated packaging.

Digital printing also allows for rapid setup and reduces waste, making it more sustainable and cost-effective for companies aiming for customization or accelerated time-to-market. Moreover, the level of detail achievable with digital technology often surpasses the quality of traditional techniques.

Despite the clear advantages of digital printing, the choice between it and traditional techniques depends on factors like the required quantity, budget, design, and timeline. If a company needs to produce a large batch of packaging with simple, consistent graphics, traditional printing will prove more economical and efficient. However, for limited print runs or variable productions, digital printing is almost always the best choice, offering speed, flexibility, and reduced storage costs. A company launching seasonal, promotional, or market-specific products will find in digital printing the ideal tool to respond quickly to trends.

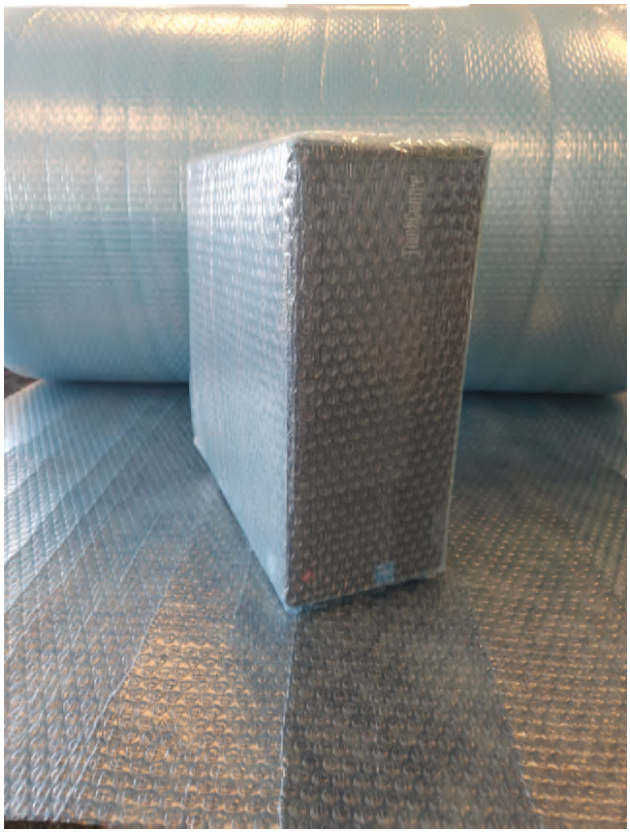
A notable example of digital printing application is Coca-Cola's "Share a Coke" campaign, where the company replaced its traditional logo with individual names on bottles. This initiative leveraged digital printing's ability to create unique variants, exciting consumers and boosting sales.

In summary, traditional and digital printing offer complementary solutions to the increasingly sophisticated needs of the packaging sector. Understanding the specific advantages of each technique and knowing when to use them is crucial for any company wanting to remain competitive and meet customer expectations.

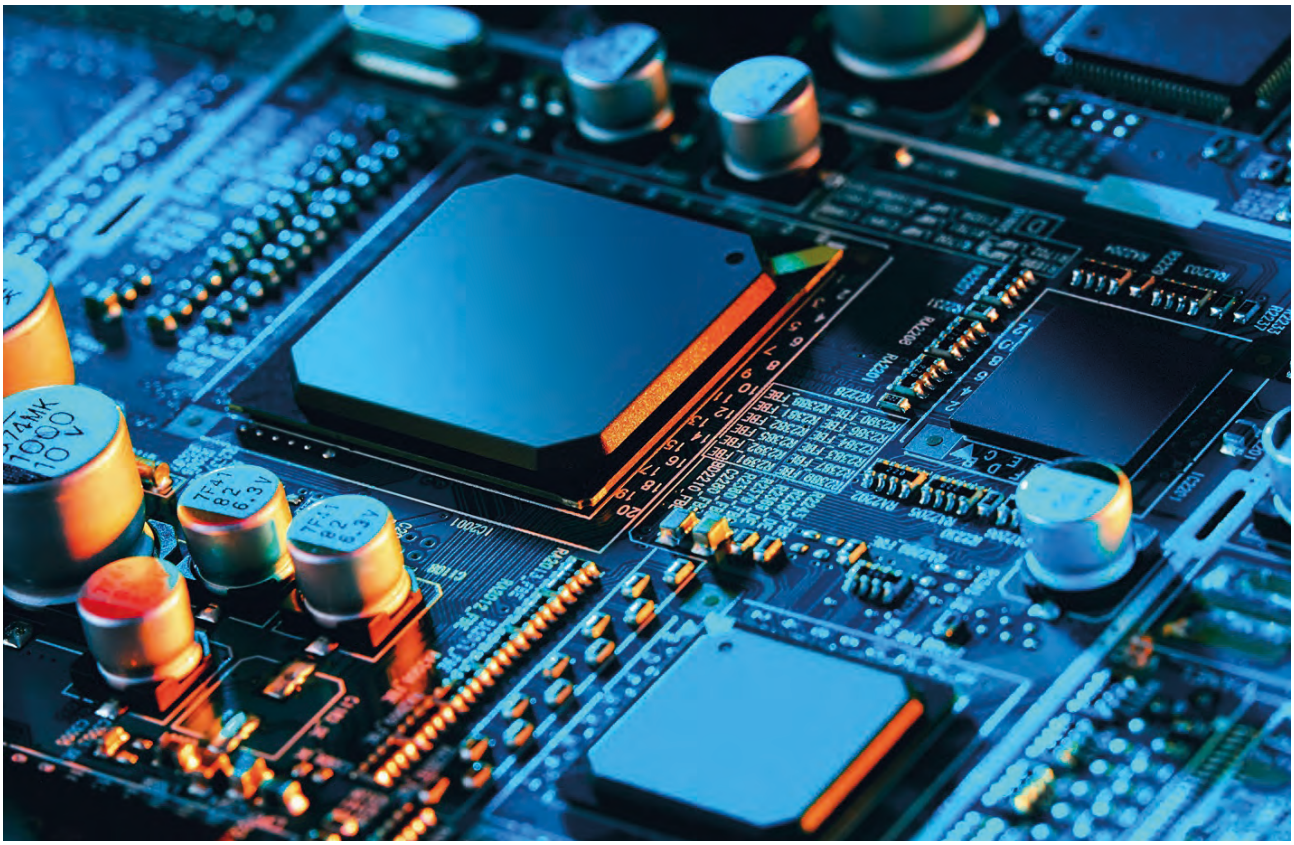
PROTECT YOUR VALUABLE COMPONENTS WITH NEW TRIPLE PROTECTION PACKAGING SOLUTION

Cortec® Launches EcoSonic® Bubble Film and Bags that Combine Cushioning Packaging with Permanent ESD protection and VpCI® Corrosion Protection Technology

ESD managers in the electronics industry are well-aware of the critical threat electrostatic discharge poses to electronic equipment. Did you know that you can shield your components from both ESD and corrosion at the same time? Cortec® Corporation's European plant, EcoCortec®, launched EcoSonic® VpCI®-125 HP Permanent ESD Bubble Film and Bags powered by Nano VpCI®. They combine vapor phase corrosion inhibitors with cushioning packaging bubble bags and permanent ESD protection to protect sensitive electronic equipment from corrosion, physical damage, and the creation of triboelectric charges. This innovative packaging solution provides comprehensive protection for electronics throughout the manufacturing, shipping, and storage processes.



EcoSonic® VpCI-125 HP Permanent ESD Bubble Film and Bags work by saturating the enclosed airspace with Vapor phase Corrosion Inhibitors that form a protective molecular layer on all packaged metals without leaving behind a noticeable film or residue. The bubbles serve as cushioning, dunnage, and void fill material. Why combine corrosion and permanent ESD protection in a single bubble bag? Consider this: electronics are complex and sensitive components that often contain multiple metal types within a single unit. Any discoloration, let alone corrosion, can lead to rejection by end users due to the potential for failure. While dry environments pose small



risk, shipping electronics across continents or exporting them worldwide exposes them to unpredictable and extreme conditions—fluctuating temperatures, humidity, and even condensation. This creates a fertile ground for corrosion within the electronics package. And let's not forget the high costs and logistical challenges of climate-controlled warehousing in hot, humid climates. By combining corrosion protection with ESD packaging and bubble wrap, you're combating three threats at once. It's a more convenient and efficient solution that ensures your valuable electronics arrive at their destination safe and undamaged.

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- Please contact EcoCortec® for more information and minimum quantity requirements.
- You can find out more about EcoSonic® VpCI®-125 HP Permanent ESD Bubble Film and Bags here: https://ecocortec.hr/eng/ecosonic-vpci-125-hp-permanent-esd-bubble-film-and-bags

Keywords: corrosion protection, ESD bags, ESD protection, EcoCortec, Cortec Corporation, electrostatic discharge, VCI film and bags, ESD bubble bags, electronics industry, corrosion inhibitors, electronics packaging

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DONE EVERYTHING RIGHT

In the beverage can growth segment traditional brewery Estrella Galicia in Spain opted for the clever Nature MultiPack system – not once but twice

In the far northwest of Spain lies the region of Galicia. It's famous not only for its capital of Santiago de Compostela, a place of pilgrimage and final destination on the Way of St. James, but chiefly for its climate: nowhere else on the Iberian Peninsula does it rain as frequently and as much as here. In strong contrast to the rest of the country, some of it plagued by drought, the green hills, regular mist and often stormy winds are reminiscent of the Irish coast. Farming and fishing are therefore both important here, with the Galicians especially proud of the variety and quality thereof. This is also what Jesús Martínez Garcia confirms, plant manager for beverage producer Hijos de Rivera. "In our region we're very conscious of the importance of the origin of our products, of the passion and creativity that goes into them and the demand for quality when it comes to asserting yourself on competitive markets," he says. "The high appreciation consumers have for Galician produce is based on a long manufacturing tradition for high-quality produce."

Estrella Galicia, the flagship of the family-run business based in the port of A Coruña, benefits from this horn of plenty. The fourth-largest brewery in the country is famous for its light, golden beer made of particularly bitter malt and hops. It takes over 20 days to brew, ferment and mature, thus lending the beer its pleasant, characteristic hoppy note. The company is also distinguished by its great willingness to experiment, as master brewer Luis Alvar proudly states. "Each year we brew three or four specialties as limited editions to test their acceptance among consumers. In the past we've flavored our beer with chestnuts, pumpkin or honey, for instance, and even with goose barnacles. For one of our milk stouts we laced the beer with milk from cows fed with spent grain (Spent

grain = the residue from the brewing malt produced during beer production that can be used industrially or as animal feed). And our pimientos de Padrón beer that we add small, local, sweet peppers to is a real hit."

Both modern and traditional

The special beers crafted under the name of "fabrica de cerveza" are just one of many examples for the company's claim to premium quality. "As opposed to the big industrial breweries of Spain, despite our recent rapid growth in size we still see ourselves as a traditional company," Alvar stresses. "We use cutting-edge technology but always with recourse to classic methods. We've drawn a number of red lines in the brewing process that we don't cross, for instance. And for us, quality always takes precedence over quantity or speed: producing a good product simply takes time – and we give ourselves this."

In 2019 MEGA was opened on the brewery premises, a world of experience plus museum and events location devoted entirely to beer culture. This is where Hijos de Rivera tells the story of the company and pays tribute to the family of owners by celebrating their innovative culture and experiences but also their battle against the increasing uniformity of beer. This is also where concerts, festivals and exhibitions are held that regularly attract a large audience.

Besides its commitment to innovative products, the lager marketed under the Estrella Galicia brand continues to be the brewery's top seller, with Estrella Galicia aiming to sell an impressive almost five million hectoliters of beer in 2023. Thanks to an upward trend that's way above the average for the rest of the country, the company is clearly on course for success – and sees considerable potential for growth in the future, too. After all, for a few years now the amount of beer consumed in Spain has steadily increased.

On course for further growth

Accordingly, its plans are no less than ambitious: as the existing Agrela production site in A Coruña is at the limits of its capacity with nine filling lines, the brewery is currently investing in a new plant ten kilometers away from the present location. An area covering a total of 500,000 square meters will soon be available that will provide plenty of room for further expansion. One of the key technology suppliers to Hijos de Rivera is Dortmund engineering company KHS. To date, the machine and systems manufacturer from Germany has delivered no fewer than five lines for glass, beverage cans and kegs to A Coruña. "For us, KHS has been one of our most important partners for many years," claims Martínez. "We particularly like their high level of innovation which in our opinion makes KHS systems among the best in the world." One of the most recent joint projects is a turnkey canning line, for example, with a capacity of up to 72,000 containers per hour. The system has two packaging machines. One of these is an Innopack Kisters Nature MultiPacker for the high-capacity range, on which beverage containers are turned into packs of four or six using easy-to-remove dots of adhesive without the need for any film or cardboard. The other is an Innopack Kisters TSPP that has a paper-wrapping module that packs 12 to 24 containers in perfectly folded and glued paper instead of in shrink film. The purpose of both packers is to provide optimized systems that consume as little material as possible and at the same time significantly reduce the packaging's carbon footprint. In parallel, an existing KHS canning line with a maximum output of 60,000 containers per hour was also expanded to include an Innopack Kisters Nature MultiPacker.

Unique packaging system

"Traditionally, we've always packaged our beverage cans in cartons so that we don't have to use any plastic," explains Garcia. "In view of the current debate on packaging and the environment, our competitors are now also increasingly doing away with film or hi-cone packs and instead using cardboard. In this context, we find it important that the packaging systems used for our products continue to be unique on the market. This is why we've gone for Nature MultiPack – a real first on the Spanish market."

Hijos de Rivera supported the launch of the new, sustainable alternative with an extensive marketing campaign. Under the motto of "the best packaging is the one that isn't there", the Estrella Galicia six-pack is sold as a NoPack. Thanks to advertising in the form of eye-catching videos chiefly posted on social media channels that showed consumers how to handle the packs, the new system has been outstandingly well received on the market. "We have had lots of absolutely excellent feedback," smiles Garcia. "Consumers are specifically asking for the

NoPack which for them is both an attractive and environmentally- and climate-friendly variant. The most important thing, however, is that we can gage our success not just through our high media presence but also by looking at our sales figures: since the launch our market share has clearly increased."

Consistent branding

The generally high brand awareness of Estrella Galicia is the result of widespread sponsoring measures that the company consistently implements in many different areas. Activities it supports include Formula 1, MotoGP and soccer – as sponsor of the local club and several teams in Spain's Primera División, among others – and countless major music festivals up and down the country. The brand is also everywhere in its home town of A Coruña: from house facades in the city center to the control tower of the local airport. What's more, the Cuatro Caminos beer bar in the middle of an old factory complex boasts the highest beer sales in the whole of Spain. The marketing ploy is so successful that it has attracted a number of imitators. "We've strengthened the brand, its values and its identity with our strategy and forged a close bond with the consumer," Garcia states.

Pledged to provide premium quality, the brewery isn't satisfied with simply investing in high-profile advertising but also wants to set a good example. "An important part of our activities focuses on saving resources and reducing our carbon footprint," the plant manager emphasizes. "This was one reason why we again chose KHS to supply our most recent canning line. The systems provider not only scored points with us for its line layout but also by having the lowest energy consumption on the market. We not only implement particularly energy-efficient technologies but also use methods designed to recover energy. And we think long and hard about the packaging of our products: how can we save even more material? Which materials are recyclable, have a positive ecobalance and at the same time are economically sustainable?" Besides using secondary packaging such as Nature MultiPack or the KHS PaperWrapper, Estella Galicia is thus increasingly opting for the beverage can as its primary packaging of choice. "We're convinced that this type of container will play an increasingly bigger role thanks to its excellent recyclability and simple handling for consumers," finds Garcia.

Reliable partner

"In KHS we definitely have the right technology partner at our side to take us through this development," production director Carlos Bao believes. He particularly appreciates the smooth coordination and cooperation between the project team on the one hand and installation and commissioning personnel on the other. Above all, the local service and support provided by the regional Spanish office are of prime importance to him. "We're extremely pleased with our new system and especially with the packaging equipment. If you want to be a pioneer, it's good to know that you can rely on your partners 100%. In this respect, we've done everything right." And so that this stays this way in the future, too, the Dortmund engineering company has now received orders for two more turnkey lines with a respective upper capacity of 72,000 non-returnable glass bottles per hour – in perfect time for the move to the new brewery.

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COMEXPOSIUM

THE FUTURE OF PACKAGING IS BRIGHT, AND IT'S UP TO US TO SHOW THE WORLD JUST HOW EXCITING IT CAN BE

It's easy to fall into the narrative that entering the packaging industry is somehow a "fall from grace," but this couldn't be further from the truth. The notion that packaging has a reputation problem is a fallacy perpetuated by an insular mindset often present within the industry. Many individuals within the sector are quick to highlight challenges, gaps in talent, or a so-called lacklustre reputation—but the reality is far more optimistic. Packaging isn't stagnant; it's thriving, and you only have to look at events like Packaging Innovations & Empack to see it's more relevant than ever.

While the industry is often perceived as closed-off, recruiting from a narrow talent pool and relying too heavily on established norms, this limited view overlooks the bigger picture: packaging is essential in everything from consumer experience to global sustainability efforts. The sector is not merely about creating boxes or containers; it is at the forefront of innovation, problem-solving, and creativity. If anything, packaging is under a bright spotlight, providing an excellent platform to showcase its value and excitement.

Dani Novick, Managing Director of Mercury Search & Selection, explains that packaging is shedding its outdated reputation, evolving into a dynamic industry driven by innovation, sustainability and consumer experiences.

There is a pressing need to move beyond the insular, somewhat defeatist views that often dominate internal discussions. Rather than focusing on outdated perceptions, the industry should recognise the immense value packaging brings to modern society and the opportunities for innovation, growth, and attracting fresh, creative talent.

According to the packaging sector's go-to recruitment specialists, the key to staying competitive isn't just about filling roles, it's about finding the right people who can look beyond the status quo and help companies rethink their approach to meeting market demands.

"That's the challenge, really," said Dani Novick, Managing Director of Mercury Search & Selection. "And it's been the same challenge, to be quite frank with you, for the last 20 years. We have a very incestuous industry. So, you talk about staying within the industry; nobody leaves this industry! Once you're in, there's no getting out. There is just no exit route. And that's partly because it's a fantastic industry to work in. It's one of the largest in the world and relatively unaffected by economic change. You know, when the world is falling apart, packaging, in particular, thrives.

"The downside to that is because nobody ever leaves, people don't realise that this industry exists to such an extent. We don't have any issue keeping people in the industry, but we struggle with attracting fresh talent. So, what we work with our clients to do is help them broaden their views and perspectives on the kind of people they want to bring into their business. If you're always recruiting a cookie-cutter model of the people you already have, or those who exist within your market, there's a danger of living in an echo chamber and not bringing forward the innovations our consumers need or that will set you apart as a packaging supplier.

"People often think of diversity as something based on sex, sexual orientation, or race, but it's not. It's about ideas and exposure to a different world—and that world should be your market segment. So, understanding your markets and recruiting from that side is even more important.

"Getting clients to think beyond the immediate vacancy is another area where we add value. A vacancy is usually a crisis point—by the time there's a gap to fill, you just want it done. Nobody enjoys recruiting, so you just want that seat or function filled. But thinking more creatively about what that role is trying to achieve is key. It's about pushing the envelope—not just on the types of people we get our clients to consider, but also on what the role's function truly is, and how it fits into the business and its long-term goals."

Specialisation

Novick emphasises a notable shift: while fundamental roles have remained consistent, specialisation has become increasingly pronounced. Today's landscape features a fragmentation of functions that were once encompassed within the role of a packaging technologist. Rather than adopting a holistic approach, the emergence of niche specialities—such as touch and feel, inclusivity, and off-pack AR & VR—has led to a more segmented workforce. This specialisation offers advantages, allowing professionals to focus on specific areas of expertise, yet it also introduces complexities that can add costs and confusion.

"What we've seen is segregation," Novick told Packaging Innovations & Empack. "All of those things you've just talked about are functions of a packaging technologist. But, to monetise and maximise the agencies and all the other people involved, we now have specialists for things like touch and feel, inclusivity, and so on. We've separated these functions. But the people haven't changed—it's just that everyone is taking their niche speciality a little bit further down the line. This has added cost to the manufacturer.

"From our perspective, it's great because we get to work with people to identify their strengths. From a candidate's perspective, we help them identify what they enjoy most about their wide-ranging brief, and then they become specialists in that area.

"The specialisation in the market has become so extreme. However, what organisations need to do on an ongoing basis isn't just focus on recruitment. Every time you recruit, you need to think about how you will train and develop, or upskill, your current workforce to ensure you aren't left with a gap in the future. Training and development, forward planning, and recruitment should really go hand in hand. But too often, the focus is just on recruitment.

"Where a specialist recruiter becomes invaluable is in identifying exactly what's needed. For example, you might think you need a specialist in haptics, but what you really need is a packaging technologist who understands materials and can sift through all the noise to determine exactly what's necessary to push the envelope. In fact, you might not need that specialisation at all.

"A general recruiter will take a job brief, advertise it, and try to find a match. However, specialist recruiters change the game by reshaping what the client is actually looking for. When we talk about recruitment, it's not just about filling a seat; it's about ensuring that the person in that seat contributes to the organisation long-term. To do that, it starts with the recruiter understanding what the function truly is."

New perceptions

Over the past 15 years, significant strides have been made

in attracting new talent through innovative training programmes and educational initiatives. Today, young people are increasingly aware of the importance of packaging, partly fuelled by the popularity of unboxing videos and social media discussions surrounding sustainability. According to Novick, these trends create an opportunity to reshape perceptions of the industry and engage a new generation of workers eager to contribute fresh ideas and perspectives.

Novick believes this shift requires a change in the narrative around the industry, moving away from a fatalistic outlook to a more optimistic view that recognises packaging as a vibrant, dynamic field with real-world significance.

"Now more than ever we have the opportunity to bring in new talent because people are realising how important packaging is," she added. "The more focus we place on younger talent, looking at how they can contribute and how their ideas can be implemented, it circles back to what I was saying earlier: changing our mindset from 'what do we have and how do we sell it' to 'what's happening, and how do we adjust to that mindset.' That's what will continue to attract people, so I think the situation is actually better than it has been.

"We need to change that script. The reality has changed—it's a vibrant industry that is continually in the spotlight, albeit sometimes for negative reasons. But what better way to start a conversation about getting involved if people are constantly bombarded with messages about sustainability and the overuse of packaging?

"I think we're in a pretty good position from a recruitment standpoint to attract new talent and bring in fresh ideas. What we need to change is the script about how we deliver and view it. To be honest, because we are an ageing industry—the average age in our industry is 47, including shop floor workers—we need to be careful not to be condescending to the younger generation. And as someone older than 47 myself, I can appreciate that. But we need to change our attitude to say, 'Hang on, what do you have to say? How can we implement your ideas?'"
At events like Packaging Innovations & Empack, the presence of the next generation is not just valuable—it's vital. Engaging with students and young professionals is an opportunity that can yield significant, quantifiable benefits for the industry.

Every opportunity to connect with emerging talent is an investment in the future of the sector. By simply engaging with these young individuals—sharing insights about their work and expressing genuine passion for what they do—meaningful connections can be created that inspire them to consider a career in packaging.

"I had a conversation with someone at the show two years ago about all the students wandering around," Novick continued. "Someone asked me, 'How did you feel about all those students sitting at your talk?' and I was thrilled. If they come to your stand, you should be thrilled too.

"The person responded, 'I'm not thrilled.' And I said, 'Well, hang on a second—my fee for recruiting one of those students for you would be £10,000 plus VAT. That alone pays for your stand, so it's not time wasted. That's a bottom-line saving, and savings are much more valuable to an organisation than sales. A £10,000 margin would come from £60,000 to £80,000 worth of sales, and that's not going to happen as easily as saving on that one recruitment.

"In the current climate, candidates are being fought for harder than ever. When you make an offer to a candidate, we're seeing more counteroffers than I've ever seen in my 25 years of recruiting for this industry. But suppose you're more passionate about your business and the opportunities you offer than the candidate's current employer is. In that case, even if that employer throws another £10,000, £15,000, or £20,000 at them, they'll still come to you."

The key to revitalising the packaging industry lies in the ability to convey enthusiasm for the work. When genuine excitement about what they do is expressed, it becomes contagious, inspiring others to share in that passion. Packaging is more than just a functional necessity; it plays a critical role in shaping consumer experiences and influencing purchasing decisions. When the workforce is viewed as more than just specialists filling seats, and instead as catalysts for growth and innovation, the true vibrancy and potential of the industry can be recognised. The future of packaging is bright, and it's up to all stakeholders to demonstrate just how exciting it can be.

Don't miss your opportunity to be part of this transformative journey. Register now as a FREE visitor for Packaging Innovations & Empack 2025 and see firsthand how the industry is evolving. Engage with top innovators, discover cutting-edge solutions, and be inspired by the future of packaging.

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THE ECOPOLYETHYLENE CONSORTIUM RENEWS ITS LEADERSHIP

The annual meeting of **Ecopolyethylene**, the consortium of the Ecolight System representing producers, distributors, and recyclers of polyethylene goods, was held recently in Milan. The meeting led to the renewal of the leadership and the **reappointment of Fabio Pedrazzi as President for the 2024-2026 triennium**.

Established in 2017 in response to environmental regulations requiring production, import, and distribution companies to manage the disposal of polyethylene goods throughout the Italian territory, **the Ecopolyethylene consortium concluded 2023 with 175 associated companies, marking a 22% increase compared to 2022**.

"I thank the board for their renewed trust after the intense work carried out in the early years of establishment and growth of Ecopolyethylene. The year 2023 saw the consolidation of the Consortium from a technical perspective, with an increase in the number of associates and the expansion of certification activities for facilities: two important indicators of the quality of our actions," commented **Fabio Pedrazzi, President of Ecopolyethylene**.

The new board of directors of the Ecopolyethylene consortium for the 2024-2026 triennium includes: Fabio Pedrazzi (President), Marco Pagani (Vice President), Lorenzo Contini, Mattia Esposito, Luigi Ferrando, Davide Macchia, Domenico Pacetti, Alfredo Tacchetti, and Laura Tondi.

In terms of volume, the Consortium represents about 12% of the sector. In 2023, it conducted over 7,100 missions throughout Italy, managing 26,032 tons of polyethylene goods waste, which is over a third (36.5%) of what was released by the associated companies.

For 2024, Ecopolyethylene anticipates continued growth with further company memberships and increased collection. However, the president highlights the need to overcome some systemic issues to give greater momentum towards creating a real circular economy in the polyethylene goods sector.

"The next three years will bring us into a new phase, that of full development. Our commitment will be to work on the system to overcome existing criticalities that have so far prevented the entire sector from fully realizing the potential for recovery of the collected material. Our Consortium aims to eliminate these intrinsic constraints, operating in synergy with all the system's players," explains Fabio Pedrazzi. *"Among the sector's criticalities, for example, there is the need to better identify, also through the development of new EWC codes, those polyethylene products that can and must be better recovered. After all, effective waste management starts with its correct identification, classification, and collection,"* continues the president of Ecopolyethylene.

"A second goal of this new phase is to collaborate with ministerial authorities to develop tools for transparency and oversight of the entire supply chain. It is indeed essential that the consortia are able to account analytically for the activities carried out and the recoveries actually achieved. This is crucial for ensuring that all consortia operate not only in a directorial role but also with actions that positively impact the environment, in line with the regulations," he continues.

Last but not least, "the responsibility that producers entrust to us in managing waste must not solely respond to the institutional and social role of companies and the consortium but must also aim at building increasingly virtuous supply chains – highlights the president. This goal is today facilitated by a multi-consortium situation that will increasingly allow the development of a true competitive regime, with all the benefits that this entails."

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MAXIMISING OPERATIONAL EXCELLENCE: THE ROLE OF PREDICTIVE AND PREVENTIVE MAINTENANCE IN MODERN INDUSTRY

Looking into how - with a tailored approach to maintenance, we can predict the lifetime of a system and know when preventive maintenance should happen.

By Roger Savo, Aftermarket Director, Europe at ELGi

In today's fast-paced industrial environment where downtime equates to significant financial losses and operational inefficiencies, implementing predictive and preventive maintenance (PPM) has become not just an option, but a necessity for companies across all sectors.

This integrated strategy not only enhances the reliability and performance of equipment, but also extends its operational life ensuring both efficiency and durability in industrial operations in a manner that underscores cost-effectiveness.

What is predictive maintenance and what are its key components?

Predictive maintenance is an advanced maintenance strategy that leverages data analytics, machine learning, and sensor technologies to predict and prevent equipment failures before they occur.

Unlike traditional maintenance approaches, such as reactive maintenance (fixing issues after they happen) or preventive maintenance (scheduled maintenance regardless of equipment condition), **predictive maintenance focuses on data-driven insights to optimise maintenance schedules and maximise equipment uptime and reliability**.

Connected new technologies play a crucial role in driving the efficiency of predictive maintenance. By integrating sensors and networks with analytics and augmented intelligence tools, predictive maintenance systems can offer more accurate predictions and real-time insights.

Call-out box

ELGi's Air~Alert is an IoT-based, smart 24/7 remote machine monitoring and alert system which can be implemented on new and existing installations. The service enables customers to act in time to avoid potential failures of compressors with 24/7 remote monitoring of a compressed air system. It does this by delivering trend graphs and information about operating parameters including discharge pressure, oil temperature, variable frequency drive (VFD) speed, total running hours, trips, and alerts on a live online interface accessible remotely from anywhere in the world. Air~Alert also functions as a predictive maintenance system notifying customers and ELGi Channel Partners about scheduled maintenance,

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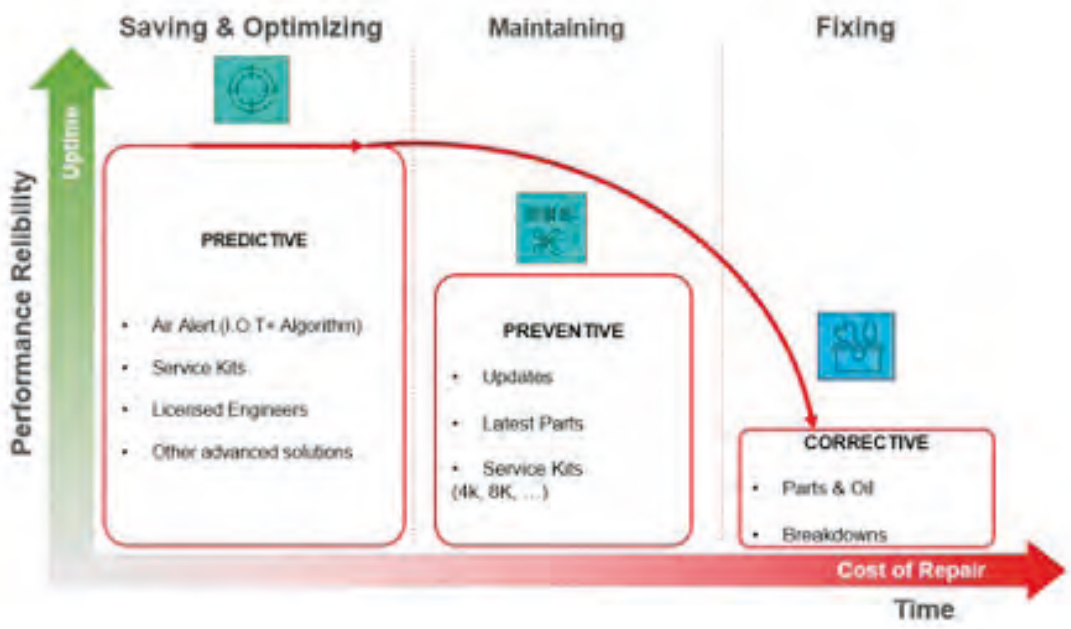

fault occurrence, and predicts commonly occurring failures. Monthly summary reports on overall health and operating parameters include upcoming planned service requirements, as well as preventative maintenance based on system data.

Smart technology integrations allow for “always-on” agility, where unforeseen machinery conditions can be addressed promptly, thus mitigating potential damage and optimising decision-making processes. Connectivity facilitates a comprehensive data exchange, enhancing the predictive analysis and enabling more informed, strategic decisions regarding asset maintenance.

Key components of Predictive and Preventative Maintenance (PPM) systems:

Implementing preventive maintenance requires a strategic approach, underpinned by several key components:

- **Advanced Sensor Technology:** IoT sensors are crucial for real-time monitoring of equipment conditions, providing the data necessary for predictive analysis.
- **Data Analytics and Artificial Intelligence (AI):** The

heart of PPM lies in data analytics and AI algorithms which process data collected by sensors to identify patterns, predict potential failures, and suggest preventive measures.

- **Skilled Workforce:** A workforce skilled in data analysis, machine learning, and the operation of sophisticated monitoring equipment is essential for interpreting data and implementing maintenance strategies effectively.
- **Cultural Shift:** Embracing PPM requires a cultural shift within the organisation, moving from a reactive to a proactive maintenance mindset. This shift involves training, change management, and ongoing support.

How Predictive Maintenance Operate:

The predictive maintenance process unfolds through several stages:

1. **Data Collection:** Continuous monitoring and data capture from machinery.
2. **Data Analysis:** Application of statistical techniques and machine learning to analyse the collected data.
3. **Anomaly Detection:** Identification of data patterns that deviate from the norm, indicating potential issues.
4. **Prediction and Decision-Making:** Use of predictive algorithms to forecast failures and decide on maintenance actions.
5. **Proactive Maintenance:** Execution of maintenance tasks before failures occur, based on predictive insights.

Benefits of implementing PPM methodology:

The rationale for adopting the predictive and preventive maintenance methodology within business operations is underlined by its significant benefits for companies:

1. **Downtime Minimisation:** Unplanned downtime is the bane of productivity. The adoption of predictive maintenance has been linked to a significant reduction in unplanned downtime, enhancing overall productivity. Connected technologies facilitate the predictive maintenance process, allowing for real-time insights and the efficient deployment of maintenance resources. According to Deloitte Analytics Institute Position Paper on Predictive Maintenance, this efficiency translates into a 20-50% reduction in maintenance planning time, a 10-20% increase in equipment uptime, and a 5-10% reduction in overall maintenance costs. Notably, implementations of predictive maintenance in sectors such as chemical manufacturing and transportation have led to significant decreases in downtime and maintenance costs, with one large chemical manufacturer achieving an 80% reduction in unplanned downtime and savings of around $300,000 per asset.
2. **Cost Reduction:** PPM significantly lowers maintenance costs by identifying issues before they escalate into costly repairs or complete equipment replacements. By optimising maintenance schedules, companies can avoid unnecessary maintenance activities, saving on labour and parts. According to Advanced Technology Services (ATS), predictive maintenance

yields cost savings between 8% to 12% over preventive maintenance and up to 40% over reactive maintenance. This insight underscores the financial benefits of adopting predictive maintenance strategies over traditional maintenance approaches.

3. **Extended Equipment Life:** Regular and precise maintenance extends the operational lifespan of machinery. According to research by McKinsey, predictive maintenance can lead to a reduction in machine downtime by 30% to 50% and increase machine life by 20% to 40%. This demonstrates the significant impact that predictive maintenance strategies can have on extending the operational lifespan of machinery, enabling companies to defer capital expenditures on new equipment and optimise the return on investment for their existing assets.
4. **Enhanced Safety and Compliance.** Implementing PPM strategies can significantly enhance workplace safety and ensure compliance with safety regulations. By proactively identifying and addressing potential equipment failures before they occur, PPM minimises the risks of accidents, creating a safer environment for employees. This proactive approach not only protects the workforce but also helps companies adhere to stringent safety standards, thereby avoiding legal and financial penalties associated with non-compliance.
5. **Operational Efficiency:** With PPM, companies benefit from an overall increase in operational efficiency. If data is collected and analysed correctly and maintenance tasks are performed just in time, equipment wear and tear is reduced, improving the performance of equipment.

Conclusion

The implementation of predictive and preventive maintenance is not just a best practice, it's a strategic imperative for companies aiming to thrive in the competitive and fast-evolving landscape of Industry 4.0. By adopting PPM, businesses can achieve not only significant cost savings and efficiency gains, but also enhance their operational resilience. In an era where downtime can be a critical setback and efficiency gains are continuously sought, PPM stands as a beacon of operational excellence, ensuring companies remain agile, proactive, and ahead of potential failures.

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UNDERSTANDING DYNAMICS OF THE CROWN CLOSURES MARKET FOR BEER AND SOFT DRINKS

The packaging industry is vouching for a boom in innovation and environmentally friendly alternatives, with closures determining product preservation and consumer ease. Among the many closure choices in the market, crown closures are widely adopted and a proficient solution, especially in the beer and soft drink area.

But before diving into the sea of crown closure trends. Let's see what the experts say about the numbers of the market:
Ismail Sutaria, the Principal Consultant for the Packaging Sector at Future Market Insights (FMI), comments, "The crown closures market is slated to embark on a slow but consistent growth trajectory, exhibiting a CAGR of 2.5% through 2033. The sales revenue of the crown closures infers a valuation of US$ 1,389.47 million by 2033"

Now, we will explore the dynamics of the crown closures sector, probing diverse trends, troubles, and opportunities of these two beverage sectors.

by Ismail Sutaria

Ismail has over 8 years of experience in market research and consulting in the packaging & materials industry. Ismail's strength lies in identifying key challenges faced by the client and offering logical and actionable insights to equip the clients with strategic decision-making power.

Ismail has been an instrumental part of several transformational consulting assignments. His key skills include competitive benchmarking, opportunity assessment, macroeconomic analysis, and business transformation advisory. Ismail is an MBA holder in Marketing and has a Bachelor's Degree in Mathematics.

Ismail is a regular at industry conferences and expos and has been widely covered in electronic and print media. He is a Speaker at our upcoming Talk show - Rise of the Intelligent Packaging. Ismail has been quoted in leading publications, including the European Pharmaceutical Review and the European Adhesive Tape Association.

Brewing Perspectives:
Insights into the Pulse of the Beer Segment

The crown closures industry has a profound impact on the global beer market, ushered by the appeal of this cherished beverage around the distinctive population and cultures. The competitive landscape of the market is dynamic. The ascend of craft breweries is a trend that has deranged conventional market dynamics and is now devising the fate of the crown closures market. This folklore of trials and innovation, strengthened by microbreweries, is a testimonial to their profound influence on the industry.
Craft breweries with a unique preference for crown closures have seen a growth spurt, recently.

These closures, with their quintessential aesthetic charm, affinity with different bottle types, and preservation ability of the artisanal individuality of their beverages, harmonize ideally with the brand image of home-crafted brewers.

This choice is not just limited to aesthetics but regarding the quality that crown closures embody, alluring to the thoughtful consumers looking for these values.

- The prime closure producer BERICAP got the TOP100 approval seal as one of the ingenious small and medium enterprises in Germany.

The craft beer resurgence has ushered growth avenues for an elevated interest in carbon neutrality in the beer packaging industry.

Consumers prioritize sustainable products, and breweries seek greener packaging solutions, like renewable and reusable crown caps.

This transition into sustainability coincides with consumer requirements and devises a prospect for crown closure producers to innovate economically greener choices.

Customized packaging designs, like embossed crown closures, have reformed beer branding and promotional campaigns.

Craft wineries use these personalized caps to uplift brand visibility and strengthen consumer connections in a competitive market.

- A United States-based packaging firm called AptarGroup has signed a collaboration agreement with Nippon Closures. It marks a cross-license registered intellectual property exchange between AptarGroup and Nippon Closures.

Pop the Potential of the Trends in the Soft Drink Industry

The crown closures are pivotal in securing carbonation, flavor, and freshness, promising a pleasant drinking experience for soft drink consumers. Despite the presence of alternative packaging solutions for instance, PET bottles and cans, glass bottles with crown closures gain unwavering traction.

The escalating demand for organic and healthier items is an essential trend molding the soft drink segment. Consumers are increasingly inclined toward drinks and beverages that are preservative-free and not filled with artificial additives.

- Beer sector accounts for more than 70% of global crown closures demand, followed by the soft drink beverages.

One of the prominent trends shaping the soft drink market is the growing demand for healthier and natural products.

As consumers gravitate towards beverages free from artificial additives and preservatives, manufacturers are responding by offering a diverse array of natural and organic options.

Crown closures serve this trend by offering a reliable seal that secures the authenticity of the product, and aligns with the demand of the customers for clean-label beverages.

The boom of functional beverages, like energy drinks, ready-to-drink teas, etc propounds new prospects for crown cap producers.

The novel category of innovative drinks needs packaging that can combat distribution troubles while retaining the true essence of the product. Crown closures emerge as the trailblazers with their solid sealing characteristics and different designs, to fulfill the needs, making them an integral choice for soft drink packaging by the manufacturers.

Intricacies in the Crown Closure Industry

With plenty of opportunities, there is a critical challenge for the market too, i.e. the presence of various options for closures contending for the market share. Crown closures cater to numerous benefits but the producers constantly are innovating to stay abreast with the progressing consumer alternatives.

The next major roadblock in the growth path is sustainability and renewability. Though these are intrinsically recyclable, attempts to enhance the recycling rates and diminish the ecological impact continue. The producers are constantly seeking alternative materials and production techniques to augment the biodegradability of crown closures, warranting they coincide with bio-based economy standards and statutory requirements.

Crown Closures as Insignia of Product Integrity

Consumers are actively looking for convenience and on-the-go consumption products, which presents an opportunity for crown closures to cater to the changing consumer requirements. Crown closures or caps that come with resealable designs, easy-open tabs, and tamper-proof seals fulfill the consumer's demand for convenience and give a positive brand experience.

The COVID-19 pandemic had brought forth myriad challenges and opportunities for the crown closures market. The industry faced obstruction in the distribution network and production technology because of the lockdowns and restrictions, the amplified demand for packaged beverages, such as beer and soft drinks, served as a silver lining.

- In March 2020, Pelliconi of Ozzano was a vital crown cork supplier in China. The company was persistent in running despite the COVID-19 pandemic, which resulted in the shutdown of multiple factories. The early February opening served as a benefit, with reference to shipping agility and market proximity.

Consumers transitioned into at-home consumption, and vendors saw a soar in demand for packaged drinks, sustaining the demand for functional closure systems. The pandemic highlighted the prominence of hygiene in packaging, escalating awareness and probing for tamper-evident attributes. During such times crown closures, with their intrinsic anti-tamper properties, are accentuated as dependable alternatives for product reliability and buyer confidence.

Final Thoughts

The crown closures market for beer and soft drinks exhibits a fusion of innovation, culture, and consumer-driven choices. To experience growth in the beverage sector evolution, the crown closure manufacturers must be relevant to the shifting dynamics, and capitalize on personalization, on-the-go convenience, and sustainability.

After comprehending the requirements of soft drink and beer makers and consumers, the crown closure manufacturers can set up as allies to carve out the packaging innovation future.

www.futuremarketinsights.com

FACEGLOSS PACKAGING COMBINES RECYCLABILITY AND AESTHETICS

Quadpack supports the new cosmetic brand with a complete range of packaging

Launching a new cosmetic brand in such a competitive market is no easy feat. facegloss appeared on the scene in October 2023 with a full range of skincare products. Four months later, the Spanish brand found itself at the top of the charts, acclaimed on social networks and high-profile media. A key factor in its success is the beautiful recyclable packaging developed by the international cosmetics packaging manufacturer and supplier Quadpack.

Anna Arbós – founder, cosmetic coach and "skinfluencer" – already had a loyal following on social media as "Glow by Anna". Creating facegloss was the realization of a dream; Anna has brought together all her knowledge in the creation of a range of highly performing and affordable skincare products, aimed at the millennial audience. With €220,000 in funding and the right partner network, they turned to Quadpack for the packaging of various products such as Cloud cleansing mousse, Chill toning and emollient spray, Superglow antioxidant serum, Glasskin all-in-one serum and the Feels Like Water moisturizing cream.

Quadpack has created a simple and refined range, in different formats, customizing some of its flagship items such as the Skin-Up bottle and the Regula glass jar as well as an excellent foamer and a nebulizer spray. The caps and pumps were decorated with a pastel lilac injection while the bottles and jars remained transparent but with a light touch of color, to highlight the formula inside.

For facegloss, sustainability is a fundamental factor, a part of its philosophy and its way of being. The packaging materials – polypropylene (PP), polyethylene terephthalate (PET) and glass – were in fact chosen based on their recyclability.

Arbós said: "facegloss has been incredibly well received. We already have loyal consumers who appreciate the brand not only because it offers high quality products but also for its aesthetic image and spectacular packaging. As we always say, these are the products that you want to have in your bathroom.

"Our packaging is absolutely beautiful. Even though we were clear on what we wanted, Quadpack helped us from the beginning to consider the best options, always supporting us and offering us the best quality. Their professionalism and closeness to an emerging brand like ours is It was flawless!"

www.quadpack.com

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- COSMETICS

GPI, THE EXTENT OF SUCCESS IN THE FOOD INDUSTRY

To manufacture a successful end-of-line plants it is crucial to become customer's algorithm, and to be a proactive listener of his visions, an expert able to provide efficient and personalized answers.

It is not by chance then that GPI's motto is "Tailor made innovation with reliability", a catchphrase for innovative, customizable and highly renowned technologies.

In the forefront of the sector, GPI - Geo Project Industries has created a team of skilled experts in packaging advice and sales engineering able to build tailored solutions upon their partners' production and sales requirements.

GPI offers a comprehensive range of horizontal cartoning machines, forming machines, closing units as well as flexible lines and modular projects whose arrangement and configuration are adjustable.

That's a real revolutionary governance of the production of some of the most popular international brands.

Tailor made plants whose every single phase - from depalletization through primary and secondary packaging and right to palletization - expresses highly specialized know-how to meet customer's requirements down to the finest details, in any food sector.

A customized and successful answer in various sectors, such as dairy, confectionery, pasta, yoghurt & juice, frozen and dry food, and pet food.

GPI GROUP
GEO PROJECT INDUSTRIES

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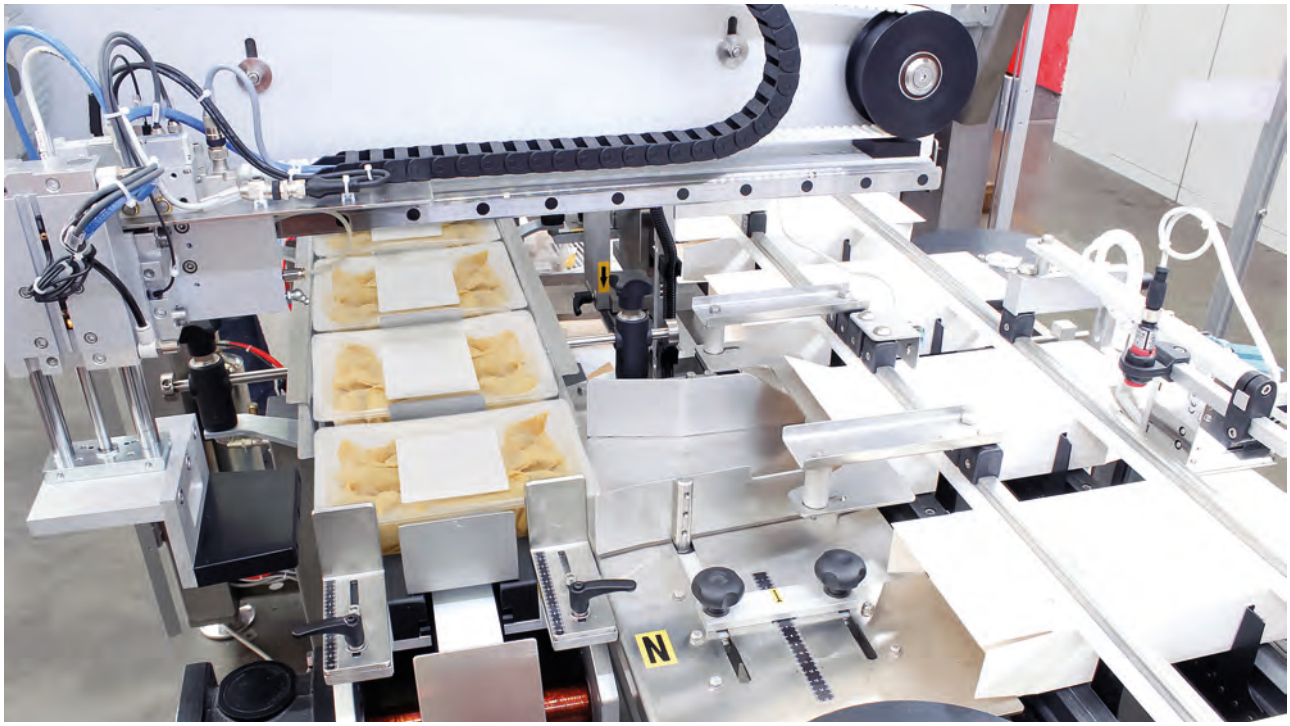
PACKAGING

The demand for automation in end-of-line packaging processes is growing, such as pouches, doypack, flowpack, bags, sachets, alu-trays, and thermoformed trays, in different formats and materials. It is also worth remembering the most appreciated and unquestionable advantage of the pouches: moderate logistic expenses, easy disposability for end consumers thanks to small volumes, and sustainability deriving from low carbon footprint: energy cost per each package is lower and footprint minimal.
Environmental awareness sharing continuous innovation to be on the frontline of packaging evolution, which needs fast and constant study to safely handle the most diverse types of packaging.

Such teamwork also involves all the company's co-operators in an environment that focuses on innovation, full customization and reliability, values that blend with GPI's passion and well-established experience.

www.gpindustries.eu



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PKG: BREAK THE LIMITS, BE UNBREAKABLE

That's our outlook on the world. We could start by saying we're "a leading company in the packaging machinery industry that provides a fully-comprehensive service" or that "we're the best and so are our machines and... blah blah blah".

Boring isn't it? Anyway, it seems they're all leading and innovative companies.

Rather we like to be the no-nonsense packaging machinery company (we wanted to use another word, but they say it's not proper).

We like to think that we are a company that's not afraid to get outside of the box and one that always sets itself new limits.

To the monotony of an industry, of a market or of everyday life, we prefer people who use their own heads, who are not scared to tread their own path, even at the risk of appearing "different" to everyone else.
We like those who, with the idea of seeking constant improvement, stop at nothing.

Just like packaging at its best.

This is **the same concept that guides us in designing functional and efficient packaging machines**, and

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BREAK THE LIMITS.
BE UNBREAKABLE.

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Machines and ideas for packaging
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Vertical Machinery
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Taping Machinery
Macchine Nastratura
Taping Machines

Shrink Wrapping Machine
Macchine Termoretraibili
Machines Thermorétractable

in our ongoing quest for solutions to simplfy and improve the job of those who prefer us.

Why prefer us then?
For example because, from the design of our machines through to the services provided, our paramount aim is always to cater to the needs of all our customers.

Which means more than the usual old rigmarole about "putting the customer at the centre of things", and is simply the pure truth: a problem for a customer means a problem for us too; customer satisfaction means our satisfaction. And nobody prefers problems to being satisfied, right?

Or maybe you should prefer us because we've been around for quite a while and over the years we can safely say we've learnt a thing or two.

For example, we know well what fundamental characteristics a good packaging machine should have and what the main requirements of our customers are.

We know how nerve-wrackings (to say the least) it is to have a machine at a standstill, waiting to be serviced or for a spare part or even worse, having to change a whole machine due to a single damaged component part.

Well, ours are no-nonsense machines, in full PKG style, designed to ensure that our customers, and therefore ourselves, do not have to face these problems (to say the least).

So yes, we are a packaging machine manufacturer. But think of us as a no-nonsense ones.

www.pkg-group.com

EASY-TO-PRODUCE AND SEPARATE FILLINGS

Storopack's PAPERplus® Classic CX: blade-free technology for versatile and sturdy paper fillings

Storopack introduces the new PAPERplus® Classic CX system for producing sturdy yet flexible paper fillings that perfectly conform to the shape of shipped goods, ensuring optimal protection even for heavier items. Thanks to perforated paper, the cushions easily detach from each other, and the machine operates without blades or cutters: an added value for workplace safety and ergonomics. Additionally, operators can choose from three different speeds and set various parameters to optimize the properties of the filling. Extremely fast and compact, PAPERplus® Classic CX easily integrates into any packing station.

A mode for every need

PAPERplus Classic® CX is a convenient and intuitive system, capable of improving packaging processes for both manufacturers and transportation companies. With high performance, it produces paper fillings in seconds directly at the dedicated workstation, allowing users to choose between the touchscreen or pedal control for maximum ease of use. The various available modes make the work more flexible; for example, users can choose to store fillings for later use or produce them individually as needed. The system can retrieve paper from a pallet, ensuring a very long operational autonomy, and only a few simple operations are needed to reload it when depleted. With this rapid and continuous material feed, it's immediately ready to get back to work.

PAPERplus® Classic CX paper cushions fill voids, are suitable for wrapping/cushioning products, and block and brace shipping goods within the box. Image: Storopack

The high-performance PAPERplus® Classic CX produces paper cushions in seconds at the packing station. Image: Storopack

Sturdy paper fillings for optimal protection

PAPERplus® Classic CX paper fillings are incredibly robust and therefore ideal for goods transported in medium and large-sized boxes: they fill voids, cushion impacts, wrap products, and secure them inside cartons. To offer the best protection and more efficient use of materials, the volume of paper bundles can be adjusted for each individual shipped item.

www.storopack.com

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PACKAGING

OUR IDEAS, YOUR NEEDS

Since 1979

Sacchettificio Toscano has been on the market since 1979 and from the beginning we chose to offer beauty and quality through our products for packaging: fabric pouches, non-woven fabric and cotton canvas shoppers, paper bags, GOTS – Global Organic Textile Standard – certified, environmentally friendly pouches, all rigorously Made in Italy.

Since 2012 the company moved to the new plant in Cerreto Guidi, a splendid building of about 3.000 m2 and built using innovative cladding material.
It has a large warehouse which allows us to quickly process orders for pouches in the most common materials.
A new building is currently being built to respond to the growth in the volumes of work.

We work every day with big fashion and jewellery brands, small quality boutiques, companies of all kinds that are looking for pouches in line with their image. Indeed, the relatively low production minimums allow us to also serve small-sized clients.

We always start from your ideas and from listening to your needs: each pouch, each package, must dress your product to perfection, but even earlier, they must dress your brand and contribute to creating a quality experience for your clients.

This is why we assist you in designing and developing the pouch, providing you with all our technical skill, experience and passion.

HAUTE COUTURE FOR PACKAGING

Our philosophy is to enhance the value of the products. When a low neckline is a masterpiece of craftsmanship, a bag is an object of desire, a boutique is an enchanted place where you can be nurtured by shapes and colours, at Sacchettificio Toscano we would like to add a small piece to the dream.

We do it with delicate satins that caress the crafted leather, velvets that dress small jewels, strong but resplendently coloured fabrics which hide gifts chosen with love, making them, at the same time, even more desirable.
We have chosen to give you Haute Couture for the packaging: we study what conforms to your style with you and we do it with the passion of those who love beautiful things. Our job is to enhance and embellish your work.
We like to think of ourselves as good travel companions that help you, season after season, to create emotions for the buyers of your products, so that they never forget your name!

ATTENTION AND CARE FOR THE ENVIRONMENT

100% ecological products.

From our love for beauty comes the one for harmony: this is why we are so careful as to be an ethical company that respects nature.
Indeed, the attention and care that transform a simple pouch into an object that your client will keep with care can only come from a peaceful environment.

HIGH QUALITY MATERIAL AND DESIGN

We create pleasant to the touch and the eye pouches to captivate all the senses.
This is why we only use selected suppliers and process only Italian made fabrics. The environmental certifications FSC® and GOTS also guarantee raw materials like paper coming from sustainably managed forests and cotton from organic farms for the most conscientious clients.

The choice of the model, its customisation, the colours... for all of this we work alongside you offering our competence and professionality. We assess the feasibility of the models, we suggest modifications, we optimise the costs to offer you a product in line with your needs.

www.sacchettificiotoscano.it

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PACKAGING

ZERO-WASTE PACKAGING: PERSPECTIVE ON REDEFINING PACKAGING DESIGN FOR CIRCULAR ECONOMY

by Ismail Sutaria

Sustainability is the backdrop to facilitate and accelerate the advancements in circular economy. Material decarbonization will spice up the consumer's requirements and laterally aid in the betterment of the environment. World around us has an environmentally conscious consumer base, prompting demand for zero-waste packaging. Businesses are reimagining packaging design from biodegradable materials to reusable containers to minimize waste and promote sustainability. The connotation of a green world is a growing circular economy where people reuse resources efficiently rather than dispose.

How did the concept of Zero-Waste Packaging arise?

Let's pen up who made it happen and how. The global packaging industry produces 141 million tons of plastic packaging annually. This is about 40% of all plastic waste. This number has doubled since 2000 to 2019, reaching 353 million tons. This has accelerated and curated the need for building lower carbon products resulting in saving the greens.

What is the impact of Zero-Waste Packaging on the packaging industry?

The packaging industry has caught a significant increase in consumption, resulting in a surge of waste and carbon emissions. This has propelled both businesses and consumers to seek eco-friendly alternatives to minimize the industry's impact on the environment. As a result, manufacturers are striving to make their primary and secondary product packaging free from single-use plastic (SUP) and incorporating recycled cardboard. It also involves embedding carbon reduction

strategies into every business process, including procurement, product design, and go-to-market. Companies across varied sectors, from food and beverage to personal care and fashion, are addressing innovative ways to reduce their environmental footprint through packaging redesign. One notable example is ***Loop***, a global shopping platform that partners with major brands to offer products in durable, reusable containers. Customers receive orders in specially designed packaging, which they return for cleaning and refill, thus eliminating single-use packaging waste.

Boons and Banes of Zero-Waste Packaging

Holding promises, Zero-Waste Packaging presents challenges for businesses. Material choice, product protection, and consumer convenience are all considerations that hold a tough job for designing packaging to be sustainable and functional. Transitioning to zero-waste packaging may entail upfront costs and operational changes for companies. Still, we can also count down on the long-term benefits, including reduced environmental impact, enhanced brand reputation, and potential cost savings.

Inventing New Trends and Innovations

Trends running throughout are increasing surge for alternative materials such as compostable plastics, plant-based fibers, and mushroom-based packaging. These materials offer biodegradability and lower environmental impact compared to traditional plastics. Clean air technology and renewable energy innovations are central to the zero waste movement. Developments in sustainable materials like recyclable resins and compostable packaging are also reshaping the approach to waste.

Another trend is the rise of package-free stores and refill stations. Here, customers can purchase products in bulk or bring their own containers for refilling. This practice not only lowers the pile of waste but also promotes a more mindful approach to consumption. Taking more trends like advances in design technology. 3D printing and digital prototyping, are enabling companies to create innovative packaging solutions that are both eco-friendly and aesthetically pleasing.

Partnering Future Perspective

"Adopting zero-waste packaging presents a metamorphic opportunity for businesses, promising cost savings, heightened brand reputation, and sustained customer loyalty, shaping the future of sustainable packaging practices" – Says Ismail Sutaria, Chief Packaging Analyst.

Adopting Zero-Waste Packaging is shaking hands with a resourceful and green environment. This is what is going to make you have a better future. Governments, businesses, and consumers alike are increasingly recognizing the urgency of addressing plastic pollution and other environmental challenges. Manufacturers, companies, and humans are building a more resilient and regenerative economy that benefits both people and the planet. This will not only put bangs for bucks but will draw a future with enough oxygen to breathe.

Rotating the Steering towards Sustainability

Different packaging industries are striving to implement the concept of sustainable packaging practices to minimize their impact on the planet. For instance, the food and beverage industry is exploring using biodegradable and compostable materials for packaging their products. In the same way, cosmetic sectors are moving towards refillable and reusable packaging options to lower carbon footprints. Then comes the e-commerce industry. They are adopting innovative delivery packaging solutions that are eco-friendly and cost-effective. For example, Amazon has created the idea of the **Ships In Product Packaging (SIPP)** program. Here, they let the items to the original manufacturer's packaging itself without additional Amazon packaging. This allows them to avoid unnecessary packaging altogether and reduce the weight of deliveries. Amazon also encourages selling partners and vendors to re-engineer packaging to meet SIPP standards. This flow demonstrates the efforts of varied packaging industries to design and embrace the trend of sustainable packaging practices that support a circular economy. Another example of Human staking sustainability as a habit was the foundation of the Chakra Sutra Organization. Himesh Fernando, founder and CEO of Chakra Suthra, aims to combat packaging waste in Sri Lanka by promoting zero-waste practices for homes and businesses. Inspired by his scientific background and experiences working in biotech and sustainable business models, Fernando established Chakra Suthra in 2020. The company's name, derived from Sanskrit, reflects its mission of providing circular solutions to waste management.

According to FMI, https://www.futuremarketinsights.com/reports/zero-waste-packaging-market,the global zero-waste packaging market value reached US$ 984.9 million in the base year (2022). The top 3 countries are likely to hold around 35 to 40% of the global zero-waste packaging market share in 2023. The ultimate goal of sustainable packaging is zero waste. Ellen MacArthur Foundation discovered that only 14% of the plastic packaging used is recycled, with the remaining 40% ending up in landfills and the remaining 32% in ecosystems (the remaining 14% is used for energy recovery or incineration).

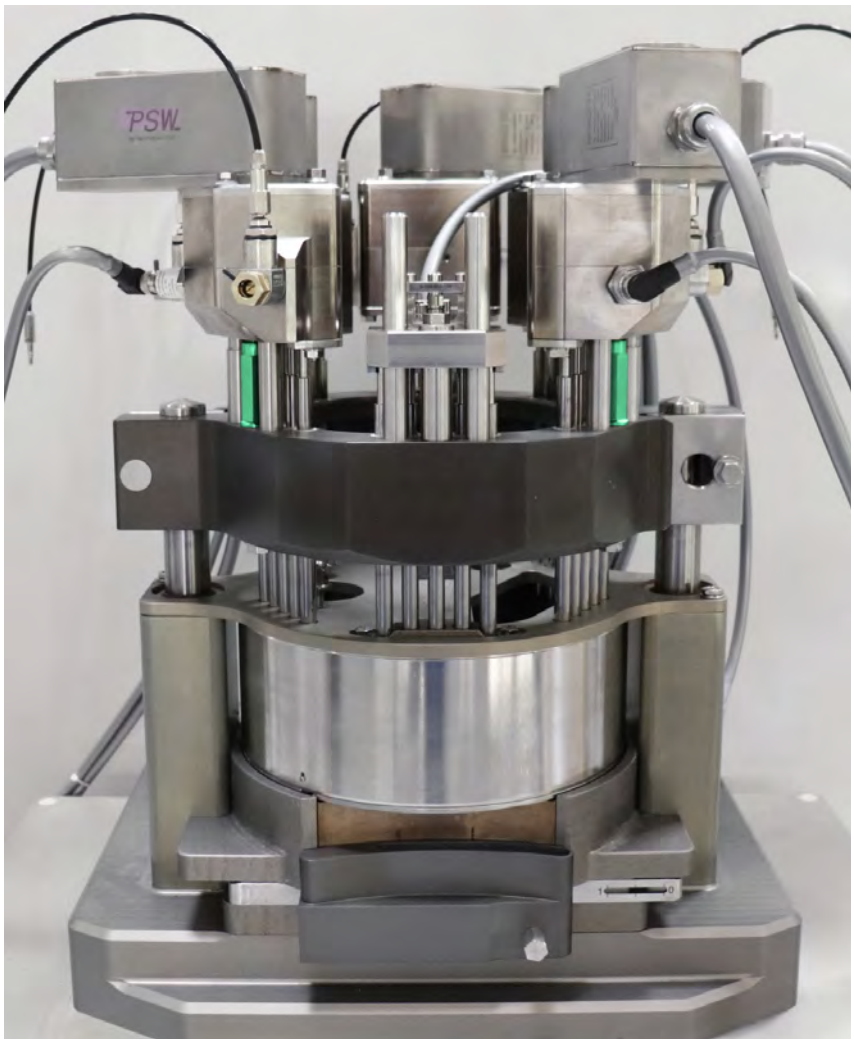
Finishing Lines

Owning the planet filled with all its resources, the spur for making it all green craves the topic of Zero-Waste Packaging. Packaging is the most detailed framework of a product; it not only holds the product but also defines the overall brand value and tampered effects that consumers always opt for. With increasing awareness and a nascent need to save the planet comes the prioritization of sustainable packaging goods. While challenges remain, recent trends and developments indicate a growing momentum towards embracing zero-waste principles across industries. Zero-waste packaging represents a paradigm shift in the way we think about packaging design. Together, embracing the journey towards zero waste and building a planet where packaging not only acts as a protective barrier but serves as a preserver for our planet for coming generations.

SYNTEGON HIGHLIGHTS AUTOMATED PROCESS DEVELOPMENT SOLUTION FOR PHARMACEUTICAL MANUFACTURING

Optimizing Capsule and Tablet Formulation with Automation and Design of Experiments (DoE)

Syntegon, a global leader in pharmaceutical process and packaging technology, highlights its innovative Automated Process Development (APD) solution, designed to streamline and enhance pharmaceutical manufacturing processes. This state-of-the-art system combines automation with statistical trial planning, or Design of Experiments (DoE), to significantly reduce the time and resources needed for both new product formulations and optimization of existing processes.



The APD system, which has already proven itself as a powerful tool in the industry, enables rapid testing and optimization through its integration with Syntegon's GKF capsule filling and TPR tablet compression machines. With the ability to conduct up to 50 trials in under two hours, APD minimizes product consumption while providing a highly efficient method for screening critical process parameters. This combination of automated execution and systematic planning offers pharmaceutical manufacturers a faster path to market and ensures optimal product quality.

The APD system automates many aspects of the trial process, offering fast and comprehensive analysis of critical material attributes and their interaction with process parameters. This real-time data collection, coupled with the ability to automatically adjust machine settings, reduces the need for operator intervention and lowers the risk of human error. For capsule filling, the APD system on the GKF 720 machine includes five automated and individually controlled tamping pin blocks, which provide precise control over dosing parameters, improving accuracy. Similarly, the APD feeder technology for tablet compression allows manufacturers to find the optimal feeder design as paddle quantity, shape and rotational direction with a novel automated configuration, ensuring that tablet quality attributes are optimized.

In addition to reducing product consumption, APD optimizes output, quality, and process robustness. Combining statistical trial planning

with automated customization and monitoring achieves the desired results, saving time and resources. This not only leads to faster, more efficient development processes but also ensures that production is scalable and adaptable to varying inputs, such as batch variability or material characteristics.

Syntegon's Pharma Services team also offers the APD solution as a service at its OSD Customer Center in Waiblingen, Germany. This service enables manufacturers to benefit from APD's sophisticated capabilities without the need for significant capital investment. Whether clients are developing new formulations or optimizing existing ones, the APD service provides a comprehensive approach to process optimization, ensuring a leaner development cycle and improved commercial production outcomes.

With over 50 years of experience, Syntegon continues to drive innovation in pharmaceutical manufacturing, offering solutions that meet the evolving needs of the industry. For more information about Syntegon's Automated Process Development, please visit: https://www.syntegon.com/press/apd-tool-identifies-optimal-process-parameters-for-tablet-presses

Processing and packaging for a better life – this is what 6,300 Syntegon employees work for every day. Be it with individual machines, systems, or services, Syntegon helps its customers in the global pharmaceutical and food industries to improve people's lives. The company, which is headquartered in Waiblingen, Germany, looks back on more than 160 years of experience and achieved annual sales of 1.5 billion EUR in 2023. In the pharma sector, the company's intelligent solutions enable the safe and high-quality production, processing, filling, inspection, and packaging of liquid and solid pharmaceuticals. In the food industry, Syntegon's flexible and reliable technologies produce and pack confectionery as well as dry and frozen comestibles.
With 1,200 service experts and a comprehensive service portfolio throughout the entire machine lifecycle from spare parts management to digital line optimization, Syntegon lays the foundation for smooth production processes for all customers. 39 sites in almost 17 countries keep a firm eye on Syntegon's impact on the environment and society. Syntegon is a leader in the development of sustainable packaging solutions, reduces the energy consumption of its machines and pursues ambitious goals to lower its emissions.

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INNOVIA ANNOUNCES EXTENDED RANGE OF FLOATABLE POLYOLEFIN SHRINK SLEEVES THAT SUPPORT PET RECYCLING

Innovia Films, a leading material science pioneer that manufactures polyolefin film materials for labels and packaging, has announced the extension of its product range for floatable polyolefin shrink films.

- **Design for Recycling: RayoFloat™ shrink sleeves support the recycling of the rigid packaging in the PET, HDPE and PP recycling streams**
- **Future-proof: Shrink sleeve material endorsed by the Association of Plastics Recyclers (APR), Extrupet in South Africa and EPBP in Europe**
- **Alternative for widely used PET-G, PVC or OPS sleeves that are still used and should be phased out to improve recycling and enable food grade recycling**

"We are proud to share our extended range of floatable shrink sleeves that work in established PET, HDPE and PP waste streams," explains Lucija Kralj, Business Unit Director Labels EMEA.

"We can now offer our customers several options – from a thinner downgauged version to a high shrink version and just like the clear film range, we now offer a white version which is ideal for light-sensitive products like dairy, food supplements, nutritional products and cosmetics" she continues. These films are sustainable alternatives for existing materials that are detrimental to recycling.

To support more mechanical recycling of post-consumer packaging, design for recycling will be essential. There are still a lot of sleeve labels in the market that cause problems in PET recycling and are flagged by organisations like RecyClass or the Association of Plastic Recyclers that have created a comprehensive Design Guideline.

"RayoFloat™ sleeve films are made from low density materials that are an ideal alternative. Automatically separate from the PET flakes in the sink/float process step at recyclers and float to the top of the washing tank – while the heavier PET flakes sink to the bottom. This is an ideal

density separation that leads to very clean PET flakes that can be recycled back into new bottles – closing the loop," explains Marika Knorr, Head of Sustainability and Communications at Innovia Films.

Thin Version – for material efficiency

The standard RayoFloat™ sleeve is 50 micron, but Innovia can also offer a thinner 45 micron version. This downgauged sleeve material is ideal for many bottle and container shapes and comes with the benefits of efficient material usage and a lower carbon footprint.

High Shrink Version – for more versatile bottles shapes

In the recent years, brand owners have gravitated towards more complex bottle shapes. This calls for a sleeve that has a high shrink rate so it can contour to the bottle seamlessly.

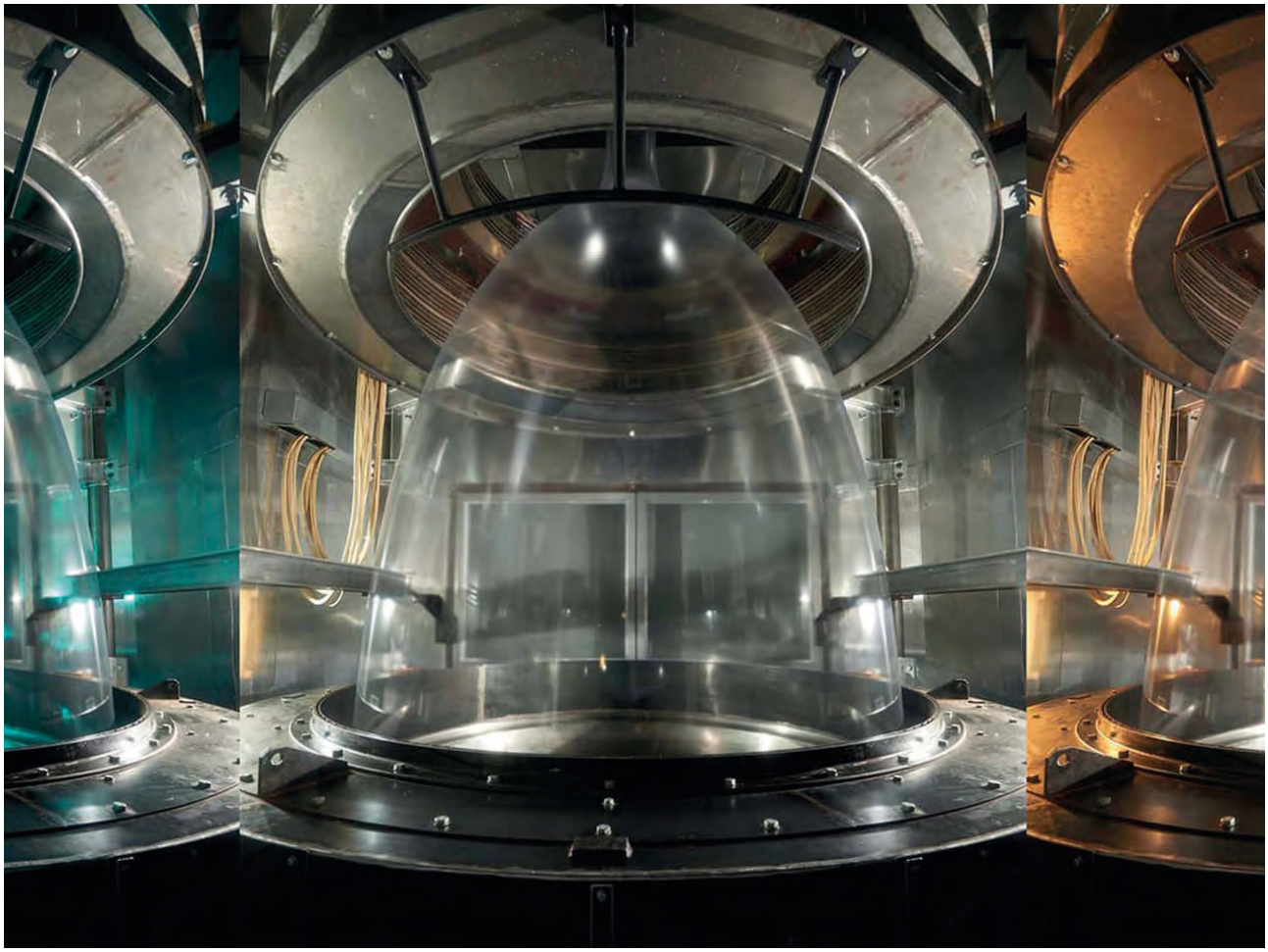
RayoFloat™ WAPO (White APO) – protection for products that are light-sensitive

The new film is a low-density white film made from polyolefin that maintains floatability when printed. The opaque film contributes to the light blocking properties of the shrink sleeves that later can be applied to containers for light sensitive products.

"Currently white PET bottles are used which are rarely recycled back into food grade applications because they contain colorants- so the bottles leave the packaging loop or are downcycled," explains Lucija. "Shifting from an opaque bottle to a clear PET bottle with a **RayoFloat™ white** shrink sleeve film will provide product protection and increases the amount of clear PET that can be reclaimed for bottle-to-bottle recycling. It is our goal to support this with a functional product decoration."

www.innoviafilms.com

INNOVIA



MARKEM-IMAJE LAUNCHES THE MOST COMPLETE RANGE OF AFTER-SALES SERVICES FOR INDUSTRIAL CODING

Markem-Imaje, a global provider of marking and coding technologies and end-to-end supply chain solutions, is launching the industry's most comprehensive range of digital, remote, and on-site hardware services to further improve customer uptime and productivity.

In October, Markem-Imaje will introduce a portfolio of after-sales service packages tailored to user needs and designed for Industry 4.0 environments.

These services are created to minimize downtime, offering 24/7 remote support and customization options. As a global company, Markem-Imaje aims to provide customers with smart tools and easily accessible resources to maximize flexibility and productivity.

Digital services are a key part of this new offering, in line with industry demands. A survey by PMMI in January revealed that 55% of end-users prefer remote assistance to solve technical issues. The top three reasons for using remote support are reduced downtime, optimized production processes, and faster service. These elements are the foundation of Markem-Imaje's commitment to innovation.

The new offering includes three levels of hardware maintenance services, with digital self-service options that allow line operators to resolve most issues themselves. This is a result of Markem-Imaje's ongoing dedication to improving coding processes. Key features include a 24/7 AI-powered virtual assistant that reduces downtime by helping users troubleshoot on their own and offering a

quick escalation process for more complex issues. Connected Printer services, based on secure IoT technology, simplify managing installed printers and ensure automatic process optimization, with real-time visibility and remote risk monitoring alerts available 24/7. Additionally, the online portal and shop allow customers to view their entire installed base, manage contracts, and order spare parts and consumables as needed.

The second service level is fully remote and includes live chat support available up to 24/7, instant remote assistance with live video guidance, and an expert help desk with access to local engineering and technical teams. This offer also includes the exclusive Markem-Imaje Advanced Exchange Service for quick and direct replacement of faulty parts.

For companies requiring on-site services and added security to reduce risks, Markem-Imaje offers services like preventive maintenance visits to avoid costly unplanned downtime, expert visits for advanced printer optimization, and on-site repairs performed by local service technicians. All maintenance packages can be customized to meet user needs, with different service levels depending on the required functionality.

"Our goal is to help customers maximize their uptime and get the best return on their investment in our hardware and software, no matter their size, industry segment, or location," says Sean Cox, Global Services Director at Markem-Imaje. "It's not just about having the right tools, but also about optimizing their use, and that's what our tailored maintenance services aim to do. Much of our offering ensures near real-time support, addressing workforce skill gaps and eliminating the need for in-person interventions or waiting for assistance wherever possible."

About Markem-Imaje

Markem-Imaje, a fully owned subsidiary of Dover Corporation, connects products and protects brands through intelligent identification, traceability, and consumer engagement solutions. We offer the industry's most complete range of integrated marking and coding systems, along with reliable software, services, and consumables. More than 50,000 customers worldwide rely on us to unlock the power of the information within their codes.

With decades of proven experience and the world's largest global network, we help our customers optimize supply chain efficiency, meet sustainability and compliance goals, ensure product safety, and engage consumers. Intelligence, beyond the mark. Visit our website at **www.markem-imaje.com/it**

markem·imaje
a DOVER company

ROBOTIC PACKAGING: ANALYSIS OF AUTOMATION'S TRANSFORMATIVE IMPACT ON PACKAGING

The rapid technology advancements in robotic technology have revolved the packaging industry in recent years. As manufacturers seek major market share and competitive advantages by boosting efficacy and cost reduction, robotic systems emerged as a game-changer solution. Robotic packaging actively offering a wide range of benefits that are reforming product quality and packaging standards.

Why robot packaging?

Precision and repeatability:

Compared to the traditional process, robotic packaging is gaining popularity among manufacturers by providing repeatability and precision. Robotic packaging is programmed to perform the packaging task with accuracy and consistency. By using computer vision and sensors, robotic arms can help manufacturers with a level of accuracy that far exceeds human capabilities. Also, robotic packaging can minimize manual inspection and rework continuing the packaging workflow.

Increased speed and throughput:

The robotic packaging offers impressively greater speed and throughput than manual labor. Robotic arms can work 24/7 with minimal downtime with more significant dexterity than humans.

The lower production cost and faster work capabilities make it the ideal choice for the packaging industry.

Improved Safety:

The workplace safety is a major concern in the packaging industry, where workers are often exposed to repetitive motions and heavy lifting with sometimes hazardous equipment. Robotic packaging eventually provides safety by removing human operators from the most risky tasks. Robotic arms are designed to handle heavy loads and operate in hazardous areas without taking the risk of human injuries. Thus, robotics are significantly reducing costs which are associated with worker's compensation and regulatory compliance.

Flexibility and adaptability:
The inherent flexibility and adaptability are contributing to the growth of acceptance of robotics in packaging. Robotic systems can be programmed and reprogrammed like dedicated packaging equipment by handling a wide variety of products with sizes and packaging configurations. This type of versatility allows manufacturers to respond to changing consumer preferences and trends.

What are the trends in Robotic Packaging?
As packaging lines become more complex and diverse, robots are being designed to handle a broader range of tasks, such as picking, packing, sorting, labeling, and palletizing. This trend is especially prevalent in the food and beverage industry, where robots are being used to handle delicate and perishable products with greater speed, safety, and hygiene. Adoption of collaborative robots. Cobots are designed to be easy to program, operate, and maintain, and can perform a wide range of tasks, such as picking and placing, assembly, and inspection. They are particularly useful in small and medium-sized enterprises (SMEs) that require flexible and affordable automation solutions.
Increasing use of robots in e-commerce and logistics, where they are used to handle the high volumes of packages and parcels that are processed every day. Robots are being used to sort, pack, and transport packages, as well as to perform last-mile delivery tasks, such as loading and unloading trucks and vans. This trend is expected to accelerate as e-commerce continues to grow and consumers demand faster and more efficient delivery options.
Focus on sustainability and environmental responsibility. Robots are being designed to reduce waste, energy consumption, and emissions, as well as to optimize the use of resources such as water and materials. For example, robots can be used to pack products more efficiently, reducing the amount of packaging material required, or to recycle or repurpose waste materials. This trend is driven by increasing consumer awareness and demand for sustainable products and practices.

Introduction of AI in the packaging industry:
"The fusion of AI and robotics into protective packaging systems connotes an innovational step toward smarter, more resilient, and eco-friendly operations, requiring investments in smart machineries and technologies." – Says Ismail Sutaria, Chief Packaging Analyst.

The packaging industry is evolving with the technological revolution, as artificial intelligence emerges as a needy and powerful innovation and transformation. The advancement in areas such as language processing, computer vision, and reinforcement learning will enable even more sophisticated automation, predictive maintenance, and supply chain optimization.

A quick look at our latest report on AI in packaging
The global AI in packaging market is estimated to be worth US$ 1,790.8 million in 2024. The artificial intelligence (AI) in packaging market is expected to reach US$ 23,415.2 million by 2034. It is projected to surge at a CAGR of 29.3% in the forecast period 2024 to 2034. The packaging sector is undergoing significant innovation through partnerships between companies, technology providers, research institutes, and government agencies, focusing on creating integrated solutions, conducting research, exchanging best practices, and resolving regulatory issues in various countries.

What is the future of robotic packaging?
The future of the packaging industry is associated with AI technology by transforming the industry into a more agile, customer-faced, and efficient. As manufacturers embrace the transformative potential of artificial intelligence, the packaging sector is poised to reach new heights of excellence and competitiveness.

Final Thoughts
Robotic packaging has become a game-changer solution for the packaging industry, offering a wide range of benefits such as precision, repeatability, speed, safety, and flexibility. Robotic systems have vastly improved the packaging workflow, increasing efficiency and reducing costs for manufacturers. Additionally, the introduction of AI has further transformed the industry, offering even more sophisticated automation and optimization.

Some recent developments in the packaging industry
In 2021, BEUMER Group was contracted by Helthjem, a Norwegian CEP (Courier, Express, and Parcel) provider, to automate its parcel sorting and distribution process. This partnership is aimed at enhancing the efficiency of Helthjem's operations and enabling it to deliver a better customer experience. By leveraging BEUMER Group's advanced sorting technology, Helthjem intends to streamline its parcel handling process, reducing processing times and boosting productivity.
In 2022, Maxpack Machinery LLC has recently launched a revolutionary piece of packing equipment called Leap by Max pack, which is designed to meet the demands of the fast-growing Buy Now, Pay Later market. Leap is a state-of-the-art automation equipment that enables customers to pay for their purchase over time. This innovative technology is offered as premium bundles with 18 interest-free, guaranteed, and credit-free monthly installments. This makes it easier for customers to invest in this equipment without having to worry about the upfront costs, thereby increasing accessibility to businesses of all sizes.

www.futuremarketinsights.com

SCANNY3D: GEOMETRIC DEFORMATION CONTROL ON GLASS BOTTLES

Scanny3D has designed and developed a double laser spot rotating 3D scanner. It is a patented device, 100% “Made in Italy” that performs a 360 ° scan without contact, at high speed, at very high resolution and in a completely automatic way.

The 3D scanner allows you to digitize and analyze bottles, plastic bottles, containers of any material and shape and various accessories.

The device returns a high fidelity 3D model and the supplied software offers numerous functions designed specifically for the beverage, packaging and bottling sector, among which the possibility of exporting the 3D model as a “solid”, thus ensuring maximum compatibility with the main CAD-CAM software.

The scanner management software contains many features, including: section analysis and measurement; assessment of the centers of gravity; automatic alignment; symmetry calculation; quality check; evaluation of inclination and stability etc.

One of these functions, for example, allows you to obtain and analyze all the sections of the bottle, easily carry out all measurements, evaluate the centroids of the sections, align the 3D model based on the center of gravity or the symmetry of a section and more.

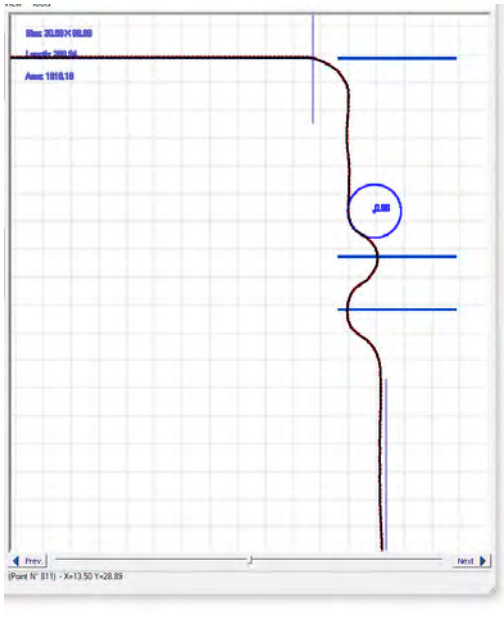
Among these numerous features, one is of particular importance for quality control on bottles.

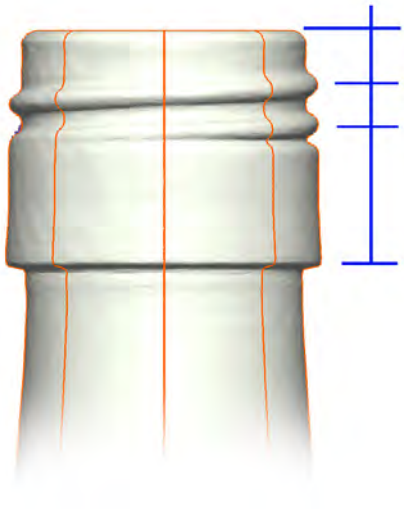
This function allows you to geometrically and numerically evaluate the deformations of a bottle with respect to the “theoretical” model or with respect to a reference bottle.

With this function, the software automatically calculates and displays the ovality of a section of the bottle, the accuracy of the bottleneck screw, the symmetry of the neck, the inclination (slope) of the bottle with respect to the plane, any deformations in the lateral surface of the bottle. , and much more.

SECTORS

- AUTOMATION
- FOOD AND NON-FOOD



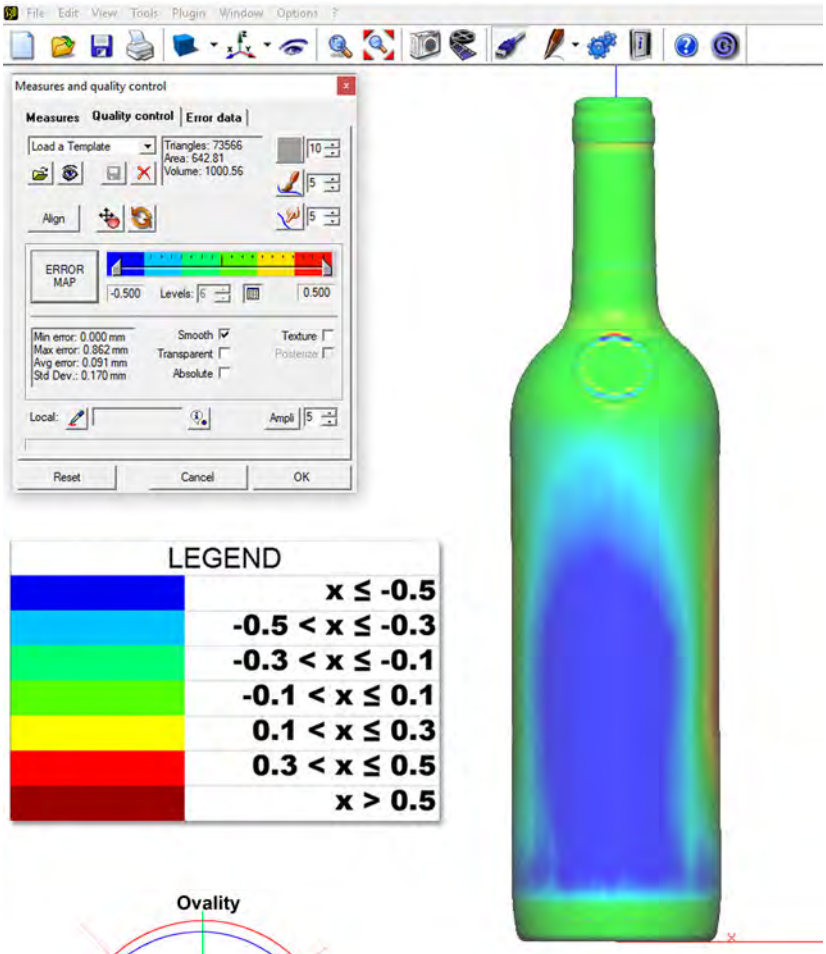


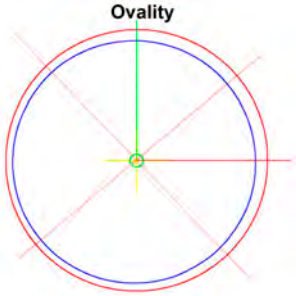
The automatic screw control of the bottleneck, among other things, is very important to ensure a perfect closure of the cap.

These geometric evaluations are carried out automatically by the software, which generates both a graphical and numerical report, and it is possible to export the results in various formats (eg Excel) for statistical purposes.

The constant mission of the R&D department is to design systems that are increasingly accurate, reliable but at the same time easy to use for the end customer, thanks to the use of cutting-edge technologies.

www.scanny3d.com





SCANNY3D®
Sistemi di scansione laser 3D
3D laser scanning systems

SÜDPACK MEDICA WINS THE SWISS PACKAGING AWARD WITH PHARMAGUARD®

Another distinction for PharmaGuard®: The polypropylene (PP)-based recy-clable blister concept has now won the Swiss Packaging Award in the Sus-tainability category. On October 17, Jürgen Bodenmüller, Ivana Rocca, and Michael Hermann from SÜDPACK MEDICA accepted the award in Olten.

First, the German Packaging Award and the World Star Global Packaging Award, followed by a nomination for the German Sustainability Award in the Products 2025 / Resources category – and now the Swiss accolade: PharmaGuard® is truly unbeatable.

This innovative film concept is seen as a pioneering packaging solution for solid pharmaceutical products or nutraceuticals. "This pure PP-based blister solution is a sustainable alternative to the commonly used materials, such as PVC and aluminum. Unlike bottle solutions, PharmaGuard® also protects each tablet individually, just like a traditional blister pack." This was the reason given by the jury of independent experts from the Swiss business community, headed by its president, Stefan Jüde.

The submitted packaging solutions are evaluated via a strictly regulated, two-stage selection process in the categories in which they were submitted. The focus is on comprehensive, forward-thinking packaging solutions, regard-less of the material used. The participating companies must wait until the award ceremony to learn whether their concept has won.

But what makes PharmaGuard® so special?
Jürgen Bodenmüller, Head of Business Development and R&D at SÜDPACK MEDICA, explains: "By focusing on

polypropylene, the overall concept deliv-ers simple and effective recyclability, making a significant contribution to the circular economy in the industry. According to an LCA conducted by Sphera, PharmaGuard® is also associated with a greatly reduced climate im-pact (in CO2-eq) of up to 47% as well as lower energy and water consump-tion compared to other popular blister solutions composed of PVC/PVdC and aluminum.

This flagship product from SÜDPACK MEDICA also stands out due to its high transparency, stable shrinkage behav-ior, good processability on standard packaging machines, and a wider sealing range compared to conventional poly-propylene. Another advantage is simple, secure sealing without the need for additional coatings – the result is a truly permanent seal which saves time, reduces costs, and also benefits the environment.

Another key safety feature is the consistently high barrier across the entire bottom web, along with the blister's ex-cellent push-through performance. "As with conventional packaging, a PP-based concept must allow weakened patients, such as seniors, to easily push tablets or cap-sules out of the film packaging without leaving residue, while still ensuring sufficient child pro-tection. Achieving this requires a high level of application expertise and a wealth of experience," emphasizes Michael Hermann, Head of R&D at SÜD-PACK MEDICA. Sales Director Ivana Rocca, who also attended the award cer-emony in Olten, adds: "The material is free from phthalates, vinyl, PFAS, and halogens, making it safe for human health. And last but not least, the ab-sence of nitrosamines is yet another reason for pharmaceutical companies to choose Phar-maGuard!"

About SÜDPACK MEDICA AG

SÜDPACK MEDICA AG is headquartered in Baar (CH) and is one of the leading suppliers of ster-ile packaging solutions in Europe as well as a pioneering partner for the global medical, pharma-ceutical, and diagnostics in-dustries. The company is part of the SÜDPACK company group and was founded in 1989. The core competency of SÜDPACK MEDICA is the development of plastic-based packaging solutions for sterile goods. The product and performance range of SÜDPACK MEDICA extends from standard solutions to tailor-made, customer-specific packaging concepts. It includes the production of coex-truded flexible and rigid films, which are used as base and lidding films, and of pre-made pouch solutions for a wide variety of products. SÜDPACK MEDICA also benefits from the SÜDPACK Group's long-standing leadership in technology and innovation in the coextrusion of polymer-based film solutions.

The production of SÜDPACK MEDICA products is per-formed at four sites in France, Germany, Switzerland and the Netherlands. These sites are equipped with the latest plant technology and manufacture to the highest standards of quality and hygiene, including the capacity to operate under clean room conditions.

For optimal support and collaboration with their custom-ers around the world, SÜDPACK MEDICA relies on a spe-cialist team working in quality, sales, development and application technology, one that has long-standing exper-tise in polymers and process engineering and in the mar-ket for sterile packaging. This makes SÜDPACK MEDICA a competent solutions partner for their cus-tomers when it comes to the implementation of packaging solutions, including those with the most demanding requirements.

SÜDPACK is committed to sustainable development and fulfills its responsibility as an employer and towards soci-ety, the environment and its customers. With its own site for processing bi-opolymers and its own compounding fa-cilities, the SÜDPACK Group is also among the trailblaz-ers in the production of forward-looking, sustainable and recyclable packaging concepts.

www.suedpack-medica.com

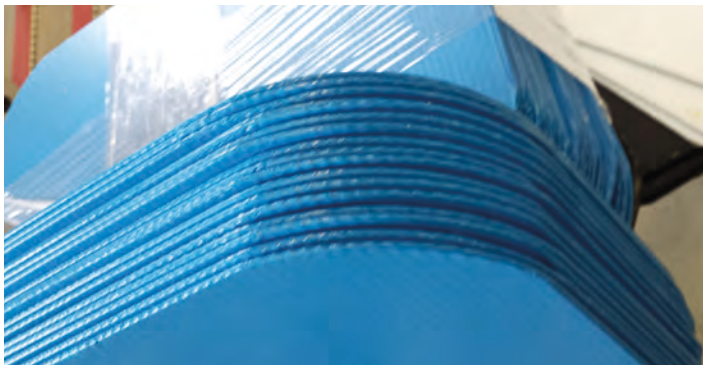
SÜDPACK MEDICA

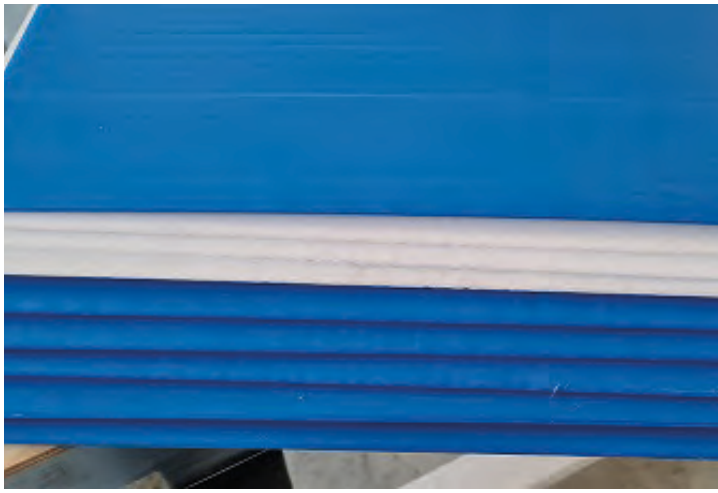
TEK IN PAK: MACHINE BUILDING EXPERIENCE FOR PACKAGING IDEAS AND DESIGNS

TEK in PAK srl is a small-sized company that carries forward a machine building experience for packaging ideas and designs, both for agriculture, with the creation of the first machines for corrugated cardboard trays, and for various industrial sectors, for example, the confectionery industry with large containers (8 panettone pandori), as well as the liquid detergent and soft drink sectors with the creation of the Visual Box and related wrap-around lines.

This packaging combines a significant reduction in cardboard while allowing for excellent and immediate product visibility, avoiding the need to cut packages for display and sale.
Furthermore, many other packages for different sectors are always used, using paper or corrugated cardboard, which is an ecological and economic material. As happens with most small companies, to keep up with the times and manage themselves effectively, they must continuously study prototypes, seek appropriate personnel, explore international market demand, and make new choices. They stop to study another product with great characteristics, evaluating respect for ecology, the ability to contain and protect the product, and the relevant machines for production. Once they find this new product, whether it is material, packaging, or machinery and has no competition, TEK in PAK starts to produce it.

The material they have adopted is PP in its various forms, including CARTONPLAST, BUBBLE GUARD, and other forms. This product has various characteristics such as being food-grade, reusable, regenerative, moisture-resistant, neutral and unaffected by adhesives or other agents.





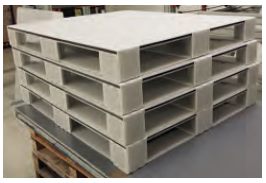
TEK in PAK has studied its own fastening system, which has led to the construction of various models of packaging without the use of current fastening systems such as adhesives or staples.

They have produced trays for fish, trays for vegetables, fruits, and vegetables that can be watered, American boxes (RSA), or sleeves for pallet boxes. In production, they also make lines for pallets of large and small sizes (BOX PALLET), which are easily produced since only adjustments are required, avoiding costs for molds and warehouse storage, unlike those on the market so far with fixed sizes.

Additionally, they have a line for interlocking edges, a fully automatic line with corner trimmers and cutters with different radii, and semi-automatic machines. TEK in PAK's production includes tray-forming machines, tray-forming machines, box bottom welders, and two-head welding machines for large boxes or pallet sleeves.

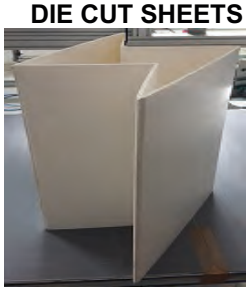
www.tekinpak.com

INTERLAYE WELDED

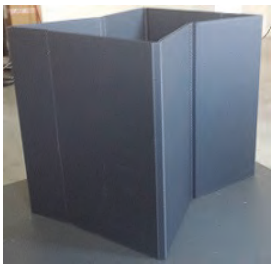


PALLET FROM DIE CUT SHEETS

BOX PALLET



CONTAINMENT SLEEVE "TIP"



CONTAINMENT SLEEVE EDGE "W"

AMERICAN BOXES

ANGULAR LARGE THICKNESSES

PLATEAUX WELDED FLAUTE

SECTORS

- PACKAGING
- PALLETS
- FOOD

VETROPACK STRAŽA CONTINUES T O INVEST IN RENEWABLE ENERGIES

The energy generated by the new Vetropack Straža III solar plant will be used to produce new glass bottles and jars.

Vetropack Straža d.d. is in the process of making production at its plant in Hum na Sutli ever more sustainable – with the upcoming installation of a third solar power plant, Vetropack Straža III. The project, co-financed by the Modernisation Fund, is expected to decrease the site's carbon emissions by 300 metric tons annually and is further evidence of Vetropack's commitment to protect the climate, in line with the "Transparent Sustainability" guideline outlined in Vetropack's 2030 strategy.

The project is set to begin in September 2024 and will span 11 months, during which 4,483 photovoltaic modules and 25 inverters will be installed on the roofs of key facilities. Co-financing of the project known as MF-2023-1-1-120 comes through an agreement with the Croatian Ministry of Economy and Sustainable Development and the Environmental Protection and Energy Efficiency Fund. Valued at EUR 1,363,108.89, the project receives co-financing of EUR 817,865.33 from the Modernisation Fund.

All the energy generated will be used for producing glass bottles and jars in the plant in Hum na Sutli. "The project contributes to Vetropack's sustainable development by reducing energy consumption by approximately 1900 MWh and greenhouse gas emissions by 300 tonnes of

Darko Šlogar, Managing Director at Vetropack Straža d.d.: "The Vetropack Straža III solar power plant is an example of the significant impact of strategic investments in improving our energy efficiency and reducing our environmental footprint."

SECTORS

- GLASS PACKAGING
- SUSTAINABILITY

The existing 3,400 solar panels are located on the roofs of the finished goods warehouses, a previously unused area.

CO2 per year," says Mario Berc, Technical Manager at Vetropack Straža.

Installing solar plants and using the generated renewable energy in production directly supports Vetropack's goal to reduce CO2 emissions by 30 percent per tonne of glass produced by 2030 (compared to 2019 levels). These carbon emission reduction targets are aligned with science-based data as provided by the Science Based Targets initiative (SBTi).Vetropack first announced its commitment to the initiative in 2022 and has submitted specific CO2 emission reduction targets to the SBTi for validation in April 2024.

On the path to renewable energy since 2019

Darko Šlogar, Managing Director at Vetropack Straža, pointed out: "The Vetropack Straža III solar power plant is an example of the significant impact of strategic investments in improving our energy efficiency and reducing our environmental footprint. This third installation at our plant, following the first two implemented in 2019, represents a significant step forward in our commitment to sustainable production and corporate responsibility."

At Vetropack Straža, previously unused large roof areas had been transformed into a productive asset with the installation of 3,400 solar panels as early as 2019. These panels cover an area of 5,565 m2 and generate an estimated 1,000 MWh of electricity per year, which is used to power air compressors. Mario Berc said at the time: "We have broken new ground with this project."

Since 2019, Vetropack Straža has further advanced its sustainable energy initiatives, notably by joining the KOER virtual power plant in 2023.

This partnership contributes to the stability of the Croatian energy system through the integration of new renewable capacity, enabling Vetropack Straža to play an important role in supporting a more sustainable energy infrastructure. The new solar power plant further increases Vetropack's renewable energy output and strengthens its role in the virtual grid, improving energy management as Croatia transitions to a more sustainable energy sector.

Ensuring stability: synthetic and natural gas integration

Vetropack Straža also continuously strengthens its energy management strategies with a focus on operational stability. One example of this is the construction of gas stations, which provide the plant with reliable alternative energy sources in the event of disruptions to the public gas supply. This integrated technical solution combines synthetic gas (produced by mixing liquefied petroleum gas and air) and natural gas from compressed natural gas storage to ensure overall seamless production operations in the event of an interruption.

"Reliable energy and resource supplies are crucial to us but so is climate protection. Our solar power plants grant us both," summarises Darko Šlogar. "Every step Vetropack takes on its sustainable journey reinforces its role as a leader in the sustainable transformation of the industrial sector. These efforts demonstrate a commitment to not only meet but set new standards in sustainability and operational excellence."

www.vetropack.com

BIOPLASTICS BEYOND BASICS: DEEP DIVE INTO CUTTING-EDGE BIODEGRADABLE PACKAGING

Did you know the packaging industry is leading towards a more sustainable future? It's all thanks to growing environmental concerns like plastic pollution and greenhouse gas emissions. Individuals have become more aware of the long-term impact of single-use plastics on our planet's ecosystems and wildlife.

Nevertheless, there's good news! Bioplastics, made from renewable resources like plants and biowaste, offer a sustainable alternative to traditional plastics. They break down naturally, reducing finite resource reliance and carbon footprint. Bioplastics are increasingly popular due to their biodegradability and reduced carbon footprint, but concerns about environmental impact, economic feasibility, and production and disposal issues may affect demand.

Rise of Bioplastic Packaging: First Step Towards the Sustainability

The term "bioplastics," made from biomass resources or biodegradable materials, can be compostable or biodegradable depending on their origin and after-use options. These materials can be designed for either the technical or biological cycle, and some, like PLA and PHA, can be recyclable and compostable if the right infrastructure is in place.

Also, not all compostable materials are bio-based. Some fossil-based compostable plastics, like PBAT and BASF Eco-Flex, are industrially compostable. However, they represent a smaller segment of the market as compared to greenhouse gas-based plastics.

According to market research from Future Market Insights, the bioplastics for packaging market is predicted to surpass US$ 30.9 billion by 2033, registering a 10.3% CAGR. Discreet but eco-friendly packaging can benefit from this rise as consumers value simplicity and sustainability.

So, what does anybody know about bioplastics? This broad class of polymers is derived from natural materials, including proteins, fermented sugar cane and maize, and corn starch. Furthermore, there are several kinds. For instance, starch-based polyesters are combined with cellulose-based polyes-

ters, biodegradable polyesters, and many more. The fact that they are constructed of renewable resources rather than fossil fuels makes them awesome.

Current Economic Application of Bioplastic

The concept of bioplastics may seem like a modern invention, but the truth is that they have been around for over a century. In fact, the Ford Model T, one of the world's first cars, was manufactured using parts made from corn and soybean oil. As the drawbacks of petroleum-based plastics have become more prominent, bioplastics have emerged as a viable alternative to create a variety of products, including food containers, grocery bags, disposable cutlery, and packaging.

One of the most commonly used bioplastics is polylactic acid (PLA), which has been employed for a wide range of applications, such as plastic films, bottles, medical devices, and shrink wrap. Moreover, PLA has been utilized for specialized uses in 3D printing. Leading companies such as Coca-Cola, PepsiCo., Heinz, Ford, Mercedes, and Toyota have already integrated bioplastics into their packaging materials as part of their commitment to sustainability.

Adaption of the Bio-Based Plastic in Early Days

Perhaps surprisingly, the concept of bioplastics is quite new. The earliest known studies with materials from naturally occurring chemicals, such as cellulose, were conducted in the early 1900s. Unfortunately, petroleum-based polymers are more versatile and affordable, so they have yet to be widely used despite their promise. However, there has been a resurgence of interest in bioplastics recently due to rising concerns about plastic pollution and the depletion of fossil resources. Modern renewable bioplastics have resulted from this, and in some situations, end-of-life alternatives like compostability and biodegradability have been enhanced.

A Confluence of Aspects Propels the Augmented Production and Use of Bioplastics

Elevated Demand from Consumers

Consumers have grown awareness of environmental issues in recent years, increasing demand for sustainable products, particularly packaging. Consumers are increasingly seeking alternatives to conventional plastics, which has prompted companies to explore bioplastics to meet these expectations and enhance their brand image. Consequently, there has been a significant drift towards bioplastics in the packaging industry, with more and more companies investing in research and development in bioplastic packaging.

Hitting Sustainability Goals Commercially

It's heartening to see more and more corporations taking steps towards sustainability by setting ambitious targets for reducing their carbon footprint and transitioning to circular economy models. Bioplastics have appeared as a profitable

solution to help companies achieve these goals, and it's encouraging to see increased investment and interest in bioplastic packaging solutions.

Development of Lowered Carbon Footprint

Bioplastics are better for the environment than regular plastics because they come from plants. When plants grow, they naturally soak up CO2 from the air, and this helps reduce the emissions created when making and breaking down bioplastics. As a result, bioplastics have a lower carbon footprint than traditional plastics.

For example, polylactic acid (PLA), a cornstarch-based bioplastic, emits fewer greenhouse gases than PET. However, the carbon footprint varies based on feedstock cultivation, conversion efficiency, and energy source. Therefore, prudent production process management is essential to maximize the benefits of bioplastics.

Aspects of Biodegradability and Composability

Let's take a moment to appreciate the positive impact of bioplastics on our environment. With their ability to biodegrade or compost, they offer a sustainable solution for a greener future. However, we must also be mindful that not all bioplastics are created equal and require specific conditions for effective breakdown. We can ensure that bioplastics continue contributing to a healthier planet by gaining more clarity on these terms.

Biodegradable bioplastics can decompose into water, carbon dioxide, and biomass with the help of microorganisms. However, this process often requires industrial composting facili-

ties that maintain high temperatures and humidity. Unfortunately, home composting conditions are usually insufficient for many bioplastics, and proper industrial composting facilities are necessary for these materials to break down more efficiently than conventional plastics in a landfill.

On the other hand, compostable plastics are a subset of biodegradable plastics designed to break down in commercial composting facilities within a specific timeframe, leaving behind no toxic residue. The standards for composability, such as ASTM D6400 in the United States, ensure that these plastics can contribute to valuable compost used to enrich soil. However, the effectiveness of composting bioplastics also depends on the availability and accessibility of these non-universally available composting facilities.

Novel Regulations on Global Level Prompts Demand for Bioplastic Packaging

Around the world, there is a growing commitment to developing and using bioplastics, backed by supportive regulatory initiatives and policies. This is particularly evident in the European Union, where the Circular Economy Package and the Strategy for Plastics in the Circular Economy have been introduced to ensure that plastics are sustainable and made from renewable and recyclable materials. Similarly, countries like Japan are taking proactive steps to promote bioplastics by providing subsidies for their manufacturing and usage.

In current terms, the focus on mitigating plastic waste has taken on a diverse approach in the United States. Different states have implemented various regulations to tackle this issue, with some advocating for bioplastic usage. Notably, the State of California has passed legislation mandating the reduction of plastic waste while promoting the adoption of compostable and recyclable packaging alternatives.

Such regulatory efforts often comprise directives on minimizing single-use plastics, providing incentives for utilizing renewable resources, and establishing standards for compostability and biodegradability. Such measures have significantly impacted the bioplastics market by bolstering demand and creating clear production and disposal guidelines.

Innovation in Bioplastics

Bioplastics are being developed to address current cost, performance, and disposal limitations. Advancements in bioplastic materials and production processes have improved their durability, flexibility, and barrier properties. New feedstock like algae and non-food crops offer sustainable alternatives. Technological breakthroughs in fermentation and genetic engineering enable bioplastics with enhanced biodegradability and composability. Research also explores bioplastic polymers and natural fiber reinforcements to improve mechanical strength and temperature resistance. Chemical recycling techniques are also being studied for circular life cycles. Regulatory landscapes and industry responses compel the bioplastics market. Government policies and companies adopting bioplastic solutions are encouraging sustainable materials. However, continued innovation, supportive regulations, and informed consumer choices are needed to overcome bioplastics' challenges and realize their full environmental benefits.

Future of Bioplastics in Ecological Packaging

"Although the delayed acceptance of bioplastic technology is concerning, change is taking place faster than expected. Bioplastics in the packaging sector have a bright future full of innovations, offering a genuine prospect of saving the planet from detrimental impacts of plastics since new developments are being created at a breakneck pace." – Says Ismail Sutaria, Chief Packaging Analyst.

The future of bioplastics in sustainable packaging is a critical stage, with significant growth potential and challenges. As environmental awareness and regulatory pressures increase, bioplastics are seen as a viable solution to reduce reliance on fossil-based plastics and pollution. Market trends show rising demand, advancements in bioplastic technologies, and expanding packaging applications.

To fully utilize bioplastics, challenges include:

- Sustainable feedstock sourcing.
- Minimizing land use impacts.
- Scaling production to meet demand.
- Improving biodegradability and composability.
- Enhancing consumer understanding.

Developing recycling infrastructure for bioplastics is crucial to prevent contamination and support circular use while ensuring proper disposal and understanding of bioplastic products.

Conclusion

In the ecological packaging industry, efficient material handling is a logistical necessity and the cornerstone of manufacturing excellence, driving operational efficiency, cost savings, and customer satisfaction. Manufacturers can unlock new levels of productivity and competitiveness in a highly competitive landscape by using biodegradable bioplastic materials.

The future of bioplastic is foreseen to notice the integration of advanced technologies such as material science and recycling production, enhancing efficiency and productivity. Bioplastics, derived from renewable resources, can contribute to a circular economy by reducing packaging's environmental impact. However, innovations in material design, waste management, and consumer behavior are needed.

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BIODEGRADABLE PACKAGING SOLUTIONS

Bpacks Launches World's First Bark-Based Packaging Technology to Replace Seamlessly Plastic Materials

The firm's new technology is fully compatible with existing production streams and targets the $384 billion global plastic packaging market.

Bpacks, a sustainable packaging startup, announced the launch of the world's first bark-based packaging technology. The new materials seamlessly integrate with current equipment used for all kinds of plastic rigid packaging production, facilitating the shift to eco-packaging. This is especially important, as the European Union's policy directives have mandated the transition to biodegradable packaging within the next five years.

Bpacks' 300 square meters R&D center, which is based in Belgrade, Serbia, enables the production of both finished packaging and granules as substitutes for plastic pellets. The bark-based pellets' production process closely resembles that of polymers and doesn't require capital investments to begin molding, since the manufacturing process mirrors that of plastic production.

The Bpacks' production process starts with compounding, followed by the creation of pellets or sheets, and concludes with the casting of solid packaging, which takes place either by injection molding or thermoforming techniques. The material should fully decompose in moist soil

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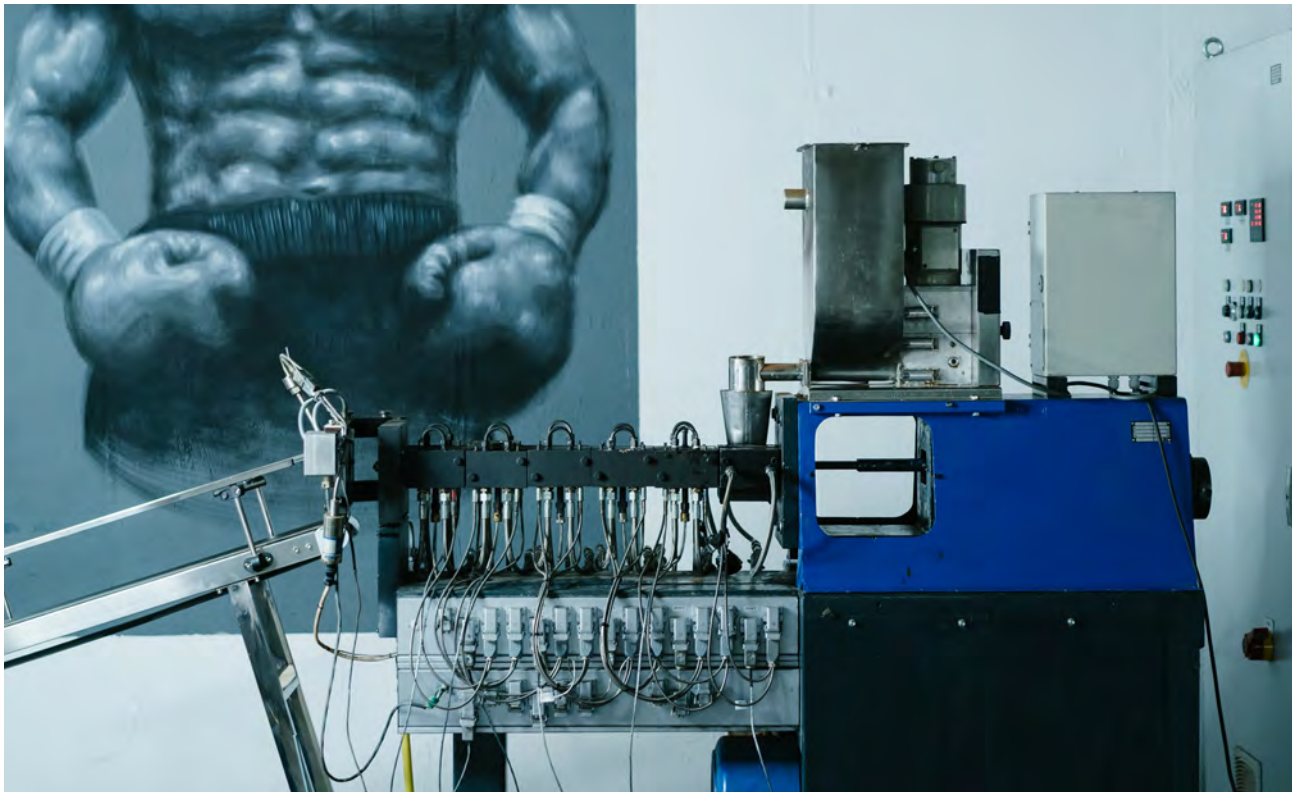
within one to two months. Nowadays, the most common biodegradable polymers such as PLA or PBAT eventually decompose into water and carbon dioxide in compost. However, neither of these adds useful material to it. Bark-based material, on the other hand, turns into compost within a week in an active environment, and enriches the compost with valuable nutrients.

"Traditional bio packaging often struggles to compete with its plastic counterparts in terms of pricing and integration complexity. Our bio-based plastic substitute can be manufactured using existing plastic production equipment, eliminating the need for plastic factories to purchase new equipment. This facilitates overcoming the market penetration challenges that most sustainable packaging startups are facing. Moreover, our packaging is 100% bio-based, with up to 75% of materials sourced from production waste. We also utilize pre-owned equipment, which helps decrease our CO2 emissions," explained Mikhail Skalkin, **Co-founder and CEO of Bpacks**.

Utilizing bark, waste of wood production, as its primary raw material, Bpacks ensures that forest resources are not further strained. With estimated bark production levels between 300 and 400 million m3 annually, the startup leverages this abundant resource to create environmentally friendly packaging solutions. Furthermore, studies have highlighted the antimicrobial potential of bark extracts from various tree species, enhancing the functionality of Bpacks' technology, which emits up to six



times fewer CO2 emissions compared to traditional plastic production methods.

Founded by an experienced team of entrepreneurs and Ph.D. scientists, and backed by an international advisory board, Bpacks is a circular economy startup operating in Europe and the United Kingdom. The company's CEO and co-founder, Mikhail Skalkin, has an extensive entrepreneurial background, including experience in M&A transactions involving large financial companies in Eastern Europe. The founding team also includes Lev Bolshakov, who has a proven record in corporate finance, startup valuations, and M&A, and has closed deals surpassing $300 million in value, Nikolay Semenov, Ph.D., a researcher, engineer, and an expert in polymer materials science. Semenov is in charge of leading the firm's R&D innovations together with Aleksandra Nešić, Ph.D., who has extensive experience obtaining and characterizing active substances from plants and organic materials. Bpacks is backed by a strong advisory board of international scientists such as professor Maximilian Lackner, Ph.D., a process chemist and engineer with over 200 articles published.

With the global packaging market reaching €1 trillion, and the sustainable packaging sector valued at $285.3 billion, Bpacks targets a very attractive and dynamic market opportunity. The firm aims to capture a slice of the $348.1 billion companies spend annually on plastic-based products, and which has spurred the emergence of novel materials and circular economy ventures, which offer biodegradable, compostable, returnable, and even edible sustainable packaging solutions.

www.bpacks.eco

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HIGH PROTECTION IN A SINGLE MATERIAL

The Ultra Solo by Quadpack: airless technology in a monomaterial packaging

Airless technology meets monomaterial design in Ultra Solo, the latest addition to the airless range from the international manufacturer and supplier of cosmetic packaging, Quadpack. The polyethylene (PE) packaging also features a metal-free pump making it recyclable and monomaterial. Moreover, the airless technology adds a whole range of benefits for the formula, the brand, and the consumer, making Ultra Solo the perfect mix between sustainability and performance.

The single-wall packaging boasts a minimal yet sophisticated design. Made of PE, Ultra Solo's sleek profile can have a glossy finish; the wide variety of possible decorations then makes it adaptable to any brand's identity. It is available in 15, 30, and 50ml sizes, for top filling.

The airless technology ensures precise dosing of 0.15cc per dispensation, which does not vary even with changing the applied pressure. The hermetic structure protects the formula from external contamination and reduces the need for artificial preservatives. The pump also allows consumers to use it at all angles, always maintaining excellent performance.

All components of Ultra Solo - cap, pump, actuator, and bottle - are made of PE. Thus, the entire product boasts 100% recyclability, certified through the evaluation standards of the European leader Institute Cyclos-HTP*. "We aim for greater recyclability in the development of our products," explains Alejandra Isern, Quadpack Category Specialist, "and nothing is simpler than recycling a monomaterial solution. Ultra Solo is also our first airless solution in PE that expands the range of materials in our airless portfolio."

As with all Quadpack's catalog products, an Environmental Report is also available for Ultra Solo. This document provides the life cycle assessment and other data on environmental impact to help brands achieve their sustainability goals.

www.quadpack.com

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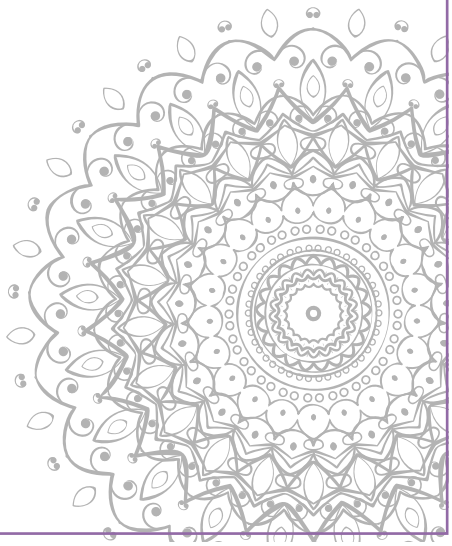

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Fair for the bakery&confectionery industry.

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