

Recipe for food SUCCESS

Sitting within a sizeable cluster of suppliers to the food industry, Rennes played host to the 26th edition of the CFIA exhibition. **Dominique Huret** reports from France's core agricultural food producing region

Between hygiene constraints and growing environmental challenges, there is a lot for food industry suppliers to consider when it comes to manufacturing processes, ingredients and packaging. This was evidenced by upwards of 100 new products on display at the 2023 edition of the Carrefour des Fournisseurs de l'Industrie Agroalimentaire (CFIA) food fair in France – literally, the 'crossroads' for agro-food industry suppliers – which attracted 1,600 exhibitors and 20,000 visitors.

“Essentially, manufacturers who come here are either looking for tomorrow's recipe, the machine that will allow them to improve their production while saving energy, or a better package for their products,” explains CFIA director Sébastien Gillet.

The French 'Loi Climat' (Climate and Resilience Law) obliges supermarkets to allocate 20 per cent of their surface area to bulk products by 2030, which has led suppliers of products to adapt to this form of merchandising.

Eliminating packaging in other ways, French converter FPC Flexible Packaging – in partnership with equipment maker Karlville and injection and extrusion firm Millet Plastics Group – has sought to create an alternative to the bag-in-box. Bag ZerO Box, or BOB, is a preformed flexible bag that can be three-side welded, quadroseal or stabilo, doypack or stand-up, or even flat bottom welded.

“It is an answer to four of the five Rs” explains FPC Netherlands' Jean Baptiste Duez. “Refuse (elimination of cartons), reduce (weight and thickness), reuse (thanks to the structural reinforcement with quadroseal), and recycle (100 per cent PE neutral or printed).



Above: Walki Group's team, including strategic product development manager Jaroslaw Kaczanowski (right), presented mono-material solutions

Right: Knauf Industries Agri-Food's Morgane Guiheux demonstrates how Keepy is in line with the French national 3Rs strategy

“It has an optional handle, while the Millet base is a universal one and can be sealed in one of the bag's welds at the top, bottom, corner, or side. Everything can be done in mono-material and produced on existing automatic machines.”

With hopes in France for the collection of expanded polystyrene (EPS) by 2025, the Knauf Circular service aims to collect EPS at DIY stores, waste disposal centres and customer premises. Isobox AgroMer and Knauf Industries Agri-Food first launched the initiative in 2021.

“In line with the French national 3Rs strategy, Knauf Industries Agri-Food is also



presenting a new range of reusable containers called Keepy,” says Morgane Guiheux, product manager for the company. “This corresponds to consumption patterns and meets the needs expressed by many professional sectors including home delivery.”

The Keepy range of reusable containers is made from Knauf Industries' black PP



Expanding recycling capacity was the next logical step for Coveris, explains commercial director Luc Sauban

mono-material Kaplight (without carbon black), and is microwaveable and recyclable at the end-of-life in existing sorting channels. After several cycles of use and washing, the containers are said to remain suitable for food contact. “This packaging can also be reopened without any trace,” Guiheux adds.

Since Knauf Industries is also a large producer of fish boxes in EPS, an alternative was created called Mitsy, a full PP box with a transparent thermoformed APET lid. The box is stackable, nestable and perforated, which makes it suitable for seafood on ice.

Austria’s Coveris used CFIA to present a business unit that it launched at the end of 2022 to deliver the company’s ‘No Waste’ vision. ReCover is an independent entity formed with the objective of supplying recycled plastics to the group’s sites and its third-party customers. Coveris acquired the site and assets from recycler Capital Valley Plastics (CVP) in Blaenavon, Wales.

CVP is a PE recycler of post-consumer and post-industrial waste through in-house mechanical recycling, which is mainly extruded into construction films.

“Expanding our recycling capacity and capabilities was the next logical step,” says Luc Sauban, commercial director for south and west Europe at Coveris. “Our factory in Wales has capacity for recycling 20,000 tonnes of flexibles a year, with the objective to export to France and then Germany.”

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Monitoring risk with Moovency

CFIA dedicated its flagship ‘L’Usine Agro du Futur’ (Agro Factory of the Future) showroom to the theme of ‘Balance energy saving and performance’. Through animations and demonstrators, the showroom featured a variety of exhibitors and start-ups – one of which was French software provider Moovency.

Based in Rennes, Moovency monitors the risk of musculoskeletal disorders (MSDs), which can create performance issues and introduce significant costs for companies, both direct and indirect. On average,

an MSD costs a business €21,000 (\$22,700) and several months of downtime. The salary costs attributable to MSDs are estimated at €100-€500 (\$108-\$540) per employee per year, whether or not he or she has suffered an MSD.

Moovency quantifies musculoskeletal risks in an industrial environment via its Kimea cloud, which allows for a dynamic analysis of the MSD risk in order for companies to better prioritise their actions. The automated collection of biomechanical data represents a considerable time-saving

in the implementation of a prevention policy, according to the company.

Another interesting piece of software, presented by Button Hop, is an Industry 4.0 ‘connected button’ that allows the machine operator to bring up information (start/stop, defective part, etc), place orders, record events (such as change-parts and maintenance performed), and request an intervention. Connection is via Bluetooth and the operator only needs to press the button box once to trigger an action.

At present, the bottlenecks of availability and price remain, Sauban adds. “For example, 1t of virgin PET costs around €1,300 [\$1,400], while rPET costs €1,900 [\$2,050]. Yet, the demand for rPET remains huge. We use mainly PE but hopefully the market will stabilise in the near future for both materials.”

Coveris demonstrated its Monoflex PE and PP flexible mono-materials for the easy recycling of pouches, but the company’s Duralite R PE film took centre stage. Available in 55-micron for stretch and 50-micron for shrink film, the rPE film comes from Coveris’s own circular production process, offsetting the need for virgin material and therefore keeping it in line with UK and European plastics packaging tax targets.

Continuing the theme of mono-material solutions, Finland’s Walki Group showcased an interesting packaging format for the frozen food industry. Lamibel MDO-PE is designed for pillow bags and is laminated solvent-free with low-temperature-sealing LDPE. The packaging material promises high-quality appearance and stiffness, as well as improved mechanical properties compared with standard PE.

Sealed Air’s Cryovac-branded Darfresh continues to evolve through a partnership with G Mondini and Ulma Packaging. All Cryovac films contain 30 per cent rPET and the benefits of the latest improvement are thinner inner and outer films, which means 25 per cent less plastics than competitive

films on the market, according to Sealed Air. MEB Darfresh film is 100 per cent PET and Ulma thermoformers can produce a vacuum pack that fits and protects the product like a second skin. It is said to enhance the product’s appearance and extend shelf-life. This delays microbial growth and adds the possibility of displaying the pack vertically.

Tetra Pak, meanwhile, unveiled its new range of Tetra Stelo Aseptic, including the ‘edge’ version with its smooth and rounded contours, which make it easy to open for the “eternally young” consumer, according to Olivia Fuchs, communications manager for France and Benelux. A pre-laminated membrane, with a one-step opening solution and a visible tamper evident ring, complements the package.

“Strategically, Tetra Pak is committed to the replacement of the aluminium barrier with a fibre-based barrier,” she explains. “A test phase is underway on this innovation, which should make it possible to protect the product, while reducing its plastics content and its carbon impact. In addition, these developments will remain compatible with recycling channels while providing value to paper recyclers.”

A recent example is French retailer Monoprix, which has partnered with Tetra Pak to reduce the environmental impact of its packaging. Since the beginning of the year, the chain has been offering eight references of fresh juice in Tetra Rex bio-sourced, aluminium-free packaging made of more than 90 per cent plant-based materials, combining board with plant-based plastics from sugar cane. Monoprix claims a saving of more than 3t of fossil plastics and 4.4t of carbon dioxide per year, excluding caps. EP