



Anuga FoodTec 2024 Wrap up

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www.worldpackaging.org

Aluminium free aseptic cartons, seaweed films, top wrap labelling & paper based trays at Anuga FoodTec 2024

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Joining 39,999 other people from 133 countries I recently ticked off my first participation at Anuga FoodTec which was held in Cologne, Germany.

As Anuga FoodTec is the leading international trade exhibition for the food and beverage industries the World Packaging Organisation (WPO) decided to exhibit for the first time and also participate in three speaking sessions during the four-day show.

I had the opportunity to visit some of the exhibition stands, talk to a number of exhibitors and see what packaging is new, innovative and intuitive. I was particularly looking for packaging that is recycle ready, offers improvements to packaging to provide lower environmental impacts, new advancements in paperisation and renewable materials and what is happening in Save Food Packaging design.

Some of the standout packs that I wanted to share were the SIG Alu Free cartons, SIG Cartons for Good, Sea6 Energy seaweed films and novel products, Micvac, Multivac Top Wrap and Top Close labelling and Paperboard, G.Mondini Slimfresh, Paper2Skin and Top lidding without flange.



SIG Alu Free cartons

SIG Alu Free cartons are an aseptic carton with no aluminium layer. The carton is FSC certified paperboard, is fully recyclable and produced with 100% renewable energy. The SIG Alu free carton has a carbon footprint up to 27% lower than standard SIG packaging material, thanks to a unique composite with no aluminium layer. It is specifically designed for liquid dairy products such as plain white UHT milk, cream, and other oxygen-insensitive products. The carton is made from up to 82% renewable paperboard, with ultra-thin polymer layers to contain and protect products over long periods of time without the need for refrigeration.



SIG also recently added the option to link to 100% forest-based renewable materials via a mass-balance system. The SIG Alu free carton is another step to remove aluminium from aseptic cartons but still maintain shelf life and barrier for products.

www.sig.biz

SIG Cartons for Good Foundation



As a part of the Save Food Org <https://www.save-food.org/> the WPO have had the opportunity to learn about the SIG Cartons for Good foundation and I had the opportunity during Anuga FoodTec to meet some of the team and learn more.

The SIG foundation's flagship project is called Cartons for Good and is a unique initiative designed to help communities to save surplus food, support farmers' livelihoods, and promote children's nutrition and education.

Through this program SIG plans to increase the total volume of nutritious food and beverages in SIG packaging by 50% by 2030.

SIG uses its expertise in filling technology to help communities preserve food locally, and through their expertise in packaging they can help advance sustainable development through food loss and malnutrition. The Cartons for Good model has the capacity to deliver real, scalable benefits to many developing countries.

Farmers are paid for their surplus produce which in turn enables additional income from their crop that they would not otherwise be able to sell and could potentially be ploughed back into field. Saving this food before it is ploughed back into field or wasted also provides significant environmental impact when looking at food waste.

The local, villages and communities use the mobile filling unit to cook the vegetables and preserve them in SIG's long-life cartons. The food is then distributed to local schools where children are able to access nutritious hot meals. In addition, the Cartons for Good are then collected for recycling at a local facility, so the materials can be used again through the Recycling for Good program.

<https://www.sig.biz/en/foundation/cartons-for-good>

Staying on the topic of food waste and solutions for minimising food loss and waste I was invited to visit the Micvac stand.

Micvac – helping to minimise food waste

Micvac is an innovative food processing and packaging solution company which has designed a unique in-pack cooking and pasteurisation method that provides healthy ready meals.

The original idea was borne out of trying to preserve one of the most delicate foods there is – mussels. The inventor (and founding father), Dr Joel Haamer, conducted extensive research into marine food cultivation and preservation throughout his career. He found that the best way to preserve mussels was to get rid of all the oxygen and use a fast thermal treatment. 23 years later Micvac is a thriving business.

Micvac vs food loss & waste

The team at Micvac understand the environmental impacts of food loss & waste and they wanted to ensure that the system not only extends shelf life of the ready meals but also improves production methods to minimise food loss.



The Micvac solution sees the food cooked and pasteurised in the packaging; portion by portion. The food is usually packed raw, with very few pre-cooking steps. This means that there is far less risk of excess food loss in the production process, as there is no need to prepare large batches.

Micvac multifunctional valve

The Micvac valve is at the core of the packaging design and is constructed in layers with a special adhesive in between. As the temperature rises, the air pressure opens the valve to release the steam, and with it the air/oxygen molecules in the package. When cooling begins the valve closes and the package is airtight again. The remaining steam condenses, thereby creating underpressure in the package.

This is a natural vacuum, allowing the meal a prolonged shelf life. The valve is able to repeat this over and over again. When the end consumer heats up the meal in the microwave oven at home, the valve once again does its duty and opens up to release air – and with it a whistling signal.

Ready Meals made with the Micvac method have a shelf life of approximately 40-60 days which in turn ensures that stores can keep food waste to a minimum. The packs are designed with portion control in mind, extension of shelf life and consumer convenience. A Micvac-made portion, with its unique extension of shelf-life design features, lasts a considerable time in the fridge. A portion-cooked ready meal is less likely to be wasted through the Micvac solution.

Micvac and packaging

The package used at Micvac is in many ways superior to other meal solutions. A Micvac portion has a minimum of plastic per kilo of food thanks to the vacuum and cooking process. The Micvac tray is designed to use just the right amount of packaging for the contents, which means no unnecessary air is transported. Furthermore, the trays are recyclable and the plastic gets used in the production of new products.

When we look at Save Food Packaging design and technologies for minimising food loss and waste Micvac really stood out to me as unique and I look forward to seeing this business extend elsewhere in the world.

www.micvac.com

Multivac sustainable packaging solutions

Visiting the Multivac stand at Anuga FoodTec actually took two trips as there was so much to discover in the way of advancements in sustainable packaging solutions, fibre-based trays and some very impressive top wrap and top close labelling.

If your fruit and vegetables don't have to be packed in a modified atmosphere or a vacuum, then your trays can be sealed with labels and marked directly.



Top Wrap Labelling

Top wrap labelling seals the trays with a label from above and over two sides so that the content of the tray is secure from falling out or being easily removed from the tray. The packs are automatically labelled on the line, providing tangible cost savings compared to time-consuming, manual packaging solutions.

There are a wide range of label materials available to match the recyclability regulations for each country and a combination of cardboard trays and paper labels optimise recyclability of the pack. The cut-outs are designed for air circulation.



Top Close Labelling

In the case of Top Close labelling, a label adheres only to the edge of the tray. Top close labelling seals trays from above and labels them in a single pass. The carrier material is retained in the centre of the label so that your product does not come into contact with the adhesive.

Paperisation

The one innovation that I saw across multiple stands were paper-based meat trays and I was interested to see if there had been any advancements in functionality and sustainable packaging design features. The Multivac PaperBoard formable paper stood out to me for its thoughtful and intuitive design.



PaperBoard – formable paper

The PaperBoard series has been designed to eliminate single use plastics, reduce the use of plastics and improve recyclability of the packs.

PaperBoard material can be run on packaging systems in the form of rolls, pre-cuts, or trays. Paper fibre and cardboard composites with different grammages and functional layers are available. The use of functional layers makes it possible to produce paper-based packs that meet the barrier property requirements of the respective product.

What I personally like about the PaperBoard series is that the design is a step ahead of many other available solutions in the market for separability of the components for recycling. So many consumers get frustrated by some of the packs on the market as they can't easily separate the film from the paper. This in turn means that the separable components end up in the wrong disposal bin and the pack that has been promoted as reducing single use plastic and being more sustainable is not meeting sustainable design standards.

The PaperBoard design however does separate easily as I tested multiple packs. The design features are intuitive and ensure that the paper and the film can in fact be easily and quickly separated by a consumer.



New Flexible Vacuum Pack for Mince

During my visits to the Multivac stand there was one pack that stood out in the refrigerator that I needed to see.

It was a brand-new mince pack that has been designed as a flexible vacuum pack. The soft plastics mince pack replaces a traditional rigid tray sealing application with Modified Atmosphere Packaging, with a flexible thermoformed vacuum pack.

The benefits include reduction of plastics used at the start for the pack, improved shelf-life extension through the use of vacuum packs which reduce food waste and a very unique design and pack at point of sale for the customers that is easy to open and close.

This pack certainly stood out in the refrigerator for me, and I am interested to see how this solution is rolled out across the world.

www.multivac.com



Sea6 Energy developing seaweed-based films

I was lucky enough to have shared a stage with Ludwig Schmidtchen from Sea6 Energy at a Science Slam presentation and I walked away thinking a lot more about seaweed and whether this is a viable alternate for some packaging films. It is certainly an area that we need to better understand.

Seaweeds, characterised by their efficient utilisation of solar energy and minimal resource requirements, offer a promising solution to address the pressing challenges of resource scarcity and environmental degradation.

The utilisation of seaweed biomass extends beyond traditional boundaries, encompassing the production of bio stimulants for agriculture and horticulture, food and feed ingredients, and the development of innovative biomaterials tailored for the packaging industry.

Headquartered in Bangalore, Sea6 Energy believes that there is a critical need to design innovation strategies to meet the escalating demand for raw materials, particularly within the packaging industry.

Sea6 Energy is actively engaged in research and development efforts to formulate seaweed-derived biomaterials such as coatings, and extrusion compounds for flexible films and rigids. These biomaterials offer several advantages, including biodegradability, renewability, and reduced environmental impact, positioning them as sustainable alternatives to traditional packaging materials.

Sea6 Energy have become a pioneer of innovative technologies for sustainable, large-scale and mechanised farming of sea-plants and the conversion of this sea-plant biomass to novel products for use in agriculture, aquaculture, food ingredients, renewable chemicals, bioplastics as well as Biofuel.



Sea6 Energy are developing seaweed based, compostable films that can be used for packaging of FMCG goods and fast foods. These films, when discarded into the environment, will compost in a few months and are available in Food and Non-food grade applications at industry relevant scale. The commercialisation of first materials is targeted within the next 12 months.

Central to this narrative is Sea6 Energy's groundbreaking initiative, marked by the inauguration of a pioneering 1-square-kilometre seaweed farm in Indonesia in February 2024. This venture represents a significant milestone in large-scale seaweed cultivation, positioning Sea6 Energy at the forefront of sustainable resource utilisation. Through meticulous cultivation practices and leveraging the abundant sunlight and stable conditions around the equatorial ocean, Sea6 Energy can harvest biomass for a diverse array of applications at industry relevant scale.

I look forward to watching Sea6 Energy developments in the future.

<https://www.sea6energy.com/solutions/bio-plastics/>

The last stand that I wanted to talk about was G.Mondini and the first thing that stopped me was the display of the SlimFresh for Salmon. The skin pack solution offering thinness of pack was the first thing that caught my eye. Compared to other solutions for Salmon packaging that I have seen recently, this one really stands out.

SlimFresh

SlimFresh is composed of a flat cardboard support as its base laminated with a thin layer of plastic film and sealed with a top skin web as a second invisible skin around the product. The resulting vacuum skin pack offers the possibility of extending food shelf-life, ensuring freshness and bringing logistic benefits.

Recycling and sustainability are the drivers of this new pack and removing the plastic film liner from the paper is simple, ensuring efficient recycling of the paper/fibre support.



The SlimFresh skin pack solution is made up of a cardboard base combined with vacuum skin packaging. The pack offers a uniquely shaped window and the laser cutting of paper allows each brand to be able to create several window shapes depending on the product shape and size. It has the ability to pack irregular shapes for better merchandising and offers all the benefits of skin packing to ensure optimal package performance.

Paper2Skin

Another paper-based solution that I saw on the G.Mondini stand was Paper2Skin which is a unique and innovative paper top skin web technology designed to take packaging to the next level. The pack has been designed to eliminate single use plastics, use less materials at the start and ensure that the materials can be separated and recycled easily at the end of life.

The Paper2Skin material is FSC/PEFC certified, is designed to be able to separate the components for recyclability and is easily openable for the consumer.

G.Mondini Top Lidding without flange

The final solution that I wanted to share was the Top Lidding Film without flange solution. The G.Mondini flange-free technology looks to revolutionise the way products are sealed, eliminating flange distortion during both the loading and sealing processes. The design eliminates single use plastic and the amount of plastic used in your products at the start and ensures that the pack can be recycled by the consumer at the end of life.



Additional benefits include no flange distortion during loading and sealing operations, ensures that the tray and final pack remain sturdy throughout the entire value chain and there is no flange distortion on the retail shelf for the consumer to see.

Trays without flanges are readily available on the market, allowing for easy adaptation into existing production lines. The trays without flanges not only optimise storage space but also contribute to more sustainable resource management and reduced carbon emissions.

<https://www.gmondini.com/>

Anuga FoodTec has always been on my bucket list of global trade shows that I have wanted to see and it did not disappoint.

Unfortunately, I didn't get to see as many exhibition stands as I had wanted, as it is a very large exhibition with thousands of stands.

I have no doubt that there were many other innovative packaging designs on display that I missed but the ones I have mentioned are just some that I wanted to share with you.

If you are planning to attend the next edition of Anuga FoodTec on the 23rd to 26th of February 2027 I would recommend that you allow at least two days to walk around the show.

I also look forward to returning to Anuga FoodTec in 2027 to see even more advancements in sustainable packaging and recycle ready packs. Imagine what we will see in three years!

PKN Podcast Ep 87: with Nerida Kelton FAIP, WPO & AIP

PKN talks... Making sustainable packaging information freely accessible globally, and about collaborating to support and celebrate women in packaging.

In this episode, Lindy Hughson, managing editor and publisher of PKN Packaging News talks to Nerida Kelton FAIP Kelton, executive director of the Australian Institute of Packaging (AIP) and vice-president for Sustainability and Save Food at the World Packaging Organisation (WPO), about educating companies in the design, production and implementation of sustainable packaging.

PKN gets an insight into what her role as the VP for the WPO entails, and the creation of the Global Packaging for Recycling Guide, which is designed to be accessible, free and ensure the recycling of the entire container.

Nerida gives us an update on the Save Food Packaging Guidelines, which is pending release globally, and has resulted in collaboration with more WPO countries.

PKN also gets an overview of the results of PIDA with exciting results for the ANZ region at the WorldStar awards, with top 3 placement for the region overall, and with students bringing home golds and silvers for best of show awards.

The discussion also explores how the AIP has worked to make the Australian Recycling Label more accessible to SMEs, and how to properly conduct Life Cycle Assessments.



We also get an insight into the broad reach of the Institute with members in New Zealand and the Philippines.

We wrap up by discussing the AIP's ongoing support of the PKN Women in Packaging forums, with increased growth in representation throughout the industry, and the importance of the new PKN Women in Packaging Awards programme to ensure that women in the industry are being recognised, supported, and celebrated.



PKN Podcast Ep 87

WPO participates in Anuga FoodTec

The World Packaging Organisation (WPO) recently participated for the first time at Anuga FoodTec in Cologne, Germany with an exhibition stand and three speaking spots. Our very own AIP Executive Director spoke at two of the sessions the Science Slam - Sustainable Packaging and Content Pro vs. Contra - The Eco-friendly Food Packaging.

Anuga FoodTec is the most important information and business platform for new concepts and innovative developments in the international food and beverage industry and an anticipated 30,000 visitors will find solutions from the areas of Food Processing, Food Packaging, Safety & Analytics, Intralogistics, Environment & Energy and Automation & Digitalisation. Anuga FoodTec is the world's only supplier tradeshow that competently covers all aspects of food and beverage production - from process technology and filling and packaging technology to food safety, packaging, digitalisation and intralogistics.

Key Highlights from the week included:

- Meeting the Managing Director of UNIDO
- Meeting the Directors of Anuga FoodTec
- Meeting the SIG Team who recently won the Save Food Org Competition
- Meeting the team from Messe Dusseldorf who run Interpack
- Catching up with the PMMI team
- Meeting the new President of the Chinese Packaging Federation
- Meeting three AIP New Zealand members



▲ Full House for Nerida's session

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▲ Meeting the Managing Director of UNIDO, Gunther Beger



▲ Meeting the SIG Team





▲ Meeting the Save Food Org Team



▲ Meeting AIP New Zealand Members



Meeting the Save Food Org Team ▲

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▲ Meeting the President of the Chinese Packaging Federation



▲ AIP NZ Member Alistair Sayers FAIP meets the new WPO President

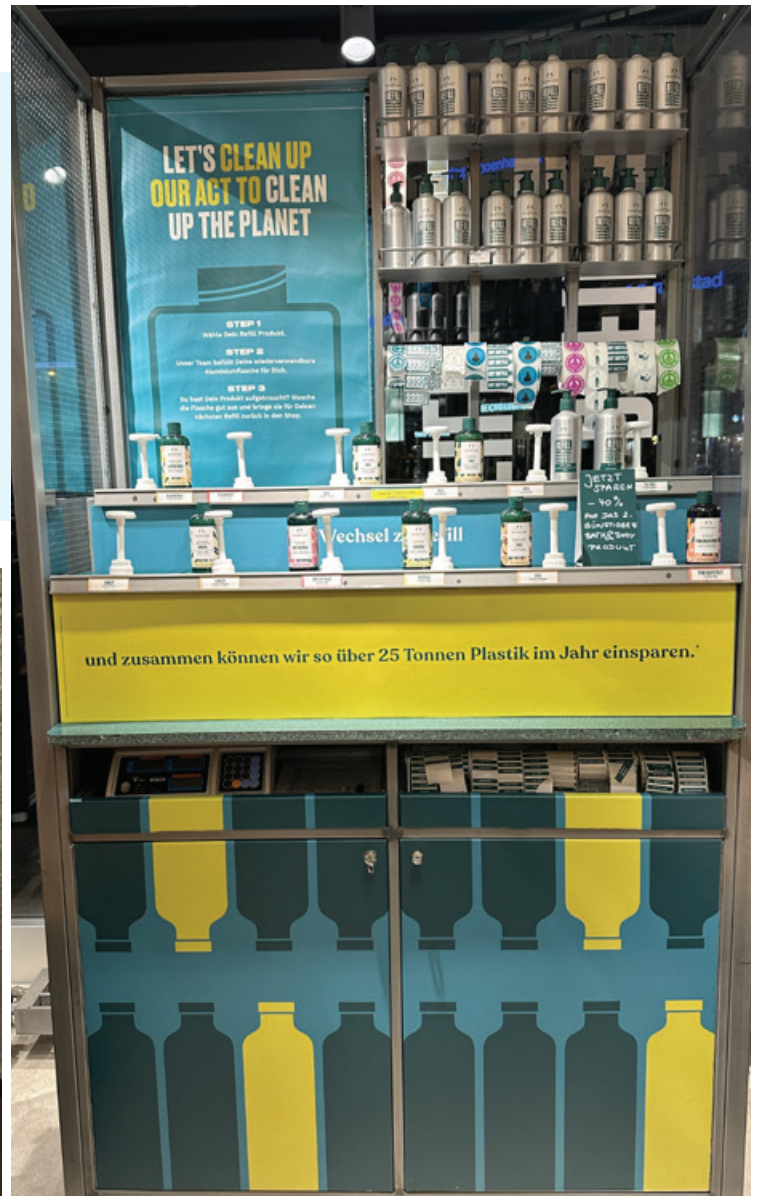


The Body Shop Refill Stations

The Body Shop developed the refill revolution and they have now rolled out refill stations across 720 of their stores globally and launching a further 130 in 2023.

Simply visit retail store, pick up an aluminium bottle and refill, reuse, repeat.

The Body Shop want to empower their customers to embrace the circular economy and help eliminate waste.





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