

# WORLDSTAR GLOBAL PACKAGING AWARDS

2023 Official Winners Guide



6 MAY 2023 Düsseldorf - Germany





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#### **2023 OFFICIAL WINNERS GUIDE**

#### **WELCOME MESSAGE, PRESIDENT**





PROFESSOR PIERRE PIENAAR, CPP

PRESIDENT WORLD PACKAGING ORGANISATION An exciting Awards program awaits us. I am looking forward to once again personally congratulating the winners on stage in front of all their peers. This event shows the best of the best in packaging, and we all get to enjoy the excitement and celebrations.

We have a responsibility and a challenge to ensure packaging gets better and better in all respects. The WorldStar Awards for packaging design excellence recognises and honours the genius of those who are serious about producing the most effective packaging.

The WPO Board of Directors, who deliberated over the entries, were again impressed by the high standard of innovation. While sustainability remains a key and necessary consideration when designing packaging, the judges were impressed by the visual design techniques employed to enhance consumer experience.

On behalf of the WPO, I make a personal appeal to future packaging designers: There is no shortage of food in the world and yet poverty is rife. There is however, a shortage of effective packaging to get more food to more people. There must be many solutions to this issue and the WPO believes a solution lies in packaging. I encourage designers to

always have this challenge in mind when contemplating new packaging designs. Congratulations to all WorldStar entries.

Each has already been a winner at a national level. May the WorldStar Award winners feel recognised and valued and be an inspiration to others in the field.

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The WorldStar Awards are administered on behalf of WPO by LibanPack, The Lebanese Packaging Center.



## **ABOUT WPO**



#### "Better Quality of Life through Better Packaging for More People."

WPO World Packaging Organisation is a non-profit, non-governmental, international federation of packaging institutes, associations, federations and other interested parties including corporations and trade associations.

Founded in 1968 on the occasion of the second Japanese International Packaging Exhibition, the World Packaging Organisation is made up today of member organisations from over 68 countries. Many members are packaging institutes; other significant members are national or regional trade Organisations that promote their countries' packaging products.

In recent years, WPO has focused on packaging in developing nations.

With headquarters in Vienna (Austria), the entity promotes projects and actions aligned to its main slogan "Better Quality of Life through Better Packaging for More People." With that mission in mind, WPO encourages the development of packaging technology, science and engineering; stimulation of international trade; and the advancement of packaging education and training.

Visit www.worldpackaging.org for further information about WPO.



#### **WPO LEADERSHIP**



#### **EXECUTIVE BOARD**



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CORPORATE PARTNER PROGRAM Ms. Hiroko Akieda Japan Hiroko@worldpackaging.org

# ABOUT WORLDSTAR



Since 1970, the World Packaging Organisation has been organizing WorldStar awards and providing awards to numerous packs from all around the world. The WorldStar Competition is one of the major events of the World Packaging Organisation (WPO) and is the pre-eminent global award in packaging. WordStar illustrates the continual advancement of the state of packaging design and technology and creates a living standard of international packaging excellence from which others may learn. Each year WPO is recognizing the best of the best in packaging innovations from across the globe. The objective of WPO in organising WorldStar is to increase awareness on the importance of packaging in having a better life and to recognize the innovation and efforts of brand owners, designers, students and branding agencies for creating packaging solutions of the future and in responding to new challenges and global trends such as sustainability, hygiene and other trends.







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# ENTRIES & WINNER BY COUNTRY FOR WORLDSTAR 2023

No.	Country	2023 Entries (488)	Winners 2023 (228)
1	Japan	49	26
2	Australia & New Zealand	32	19
3	India	50	18
4	Germany	27	18
5	Turkey	32	14
6	Austria	26	13
7	China	30	12
8	Spain	19	11
9	South Korea	16	10
10	Brazil	21	9
11	Czech Republic	15	9
12	USA	15	7
13	Finland	9	6
14	Hungary	14	5
15	Poland	13	5
16	Lebanon	13	4
17	Israel	11	4
18	Italy	8	4
19	Greece	9	3
20	Thailand	8	3
21	Sweden	6	3

No.	Country	2023 Entries (488)	Winners 2023 (228)
22	Ukraine	5	3
23	Tunisia	4	3
24	South Africa	6	2
25	Slovakia	6	2
26	Jordan	5	2
27	Norway	4	2
28	Netherlands	3	2
29	Switzerland	5	1
30	Singapore	5	1
31	Latvia	3	1
32	Chile	3	1
33	Egypt	3	1
34	United Kingdom	2	1
35	Canada	2	1
36	Belgium	2	1
37	Liechtenstein	1	1
38	Sri Lanka	2	0
39	Colombia	2	0
40	United Arab Emirates	1	0
41	Saudi Arabia	1	0

## JUDGING CRITERIA FOR WORLDSTAR MAIN CATEGORIES



Protection and preservation of contents



Sales Appeal: On-Pack Branding / Marketability



**Ergonomics** 



**Quality of Execution** 



Sustainability



Cost Reduction, economy of material, and cost saving



Ease of handling, filling, closing, opening and reclosing



Creativity and Innovation

#### WHY PARTICIPATE



- Prestige gain worldwide recognition your pack will be noticed by some of the biggest packaging buyers in the world and all over the packaging media.
- Entering gives you a great opportunity to impress new and current clients.
- Use the winner's logo on your own promotional material and stand out from your competitors.
- Receive the award at a world class awards presentation ceremony & gala dinner.
- Receive a complimentary trophy and certificate to display for all your customers to see.





# MEET THE INTERNATIONAL JUDGING PANEL OF WORLDSTAR 2023



Mr. Silvio Colombo Education Coordinator Area Argentinean Packaging Institute ARGENTINA



Ms. Nerida Kelton

Executive Director, AIP/ WPO Vice

President Sustainability & Save Food

Australian Institute of Packaging

AUSTRALIA & NEW ZEALAND



Ms. Nerida Kelton President Packforce Austria AUSTRIA



Mrs. Luciana Pellegrino
Director of ABRE, WPO Vice
President
ABRE – Brazilian Packaging
Association
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Ms. Mariana Soto Urzúa Gerente General CENEM CHILE



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(Institute (CEPI
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Mr. Hu Zhengyang
Vice Secretary
CHINA PACKAGING FEDERATION
CHINA



Ms. Suzanne Mouelle
Deputy Secretary
APECI (Association of Packaging
Professionals in Côte d-Ivoire)
COTE D-IVOIRE



Ms. Drena Tejić-milijević Managing Director Institute of Packaging and Graphic Arts Tectus - latT CROATIA



Ms. Miriela Valle Cepero Director Centro Nacional de Envases y Embalajes CUBA



Ms. Iva Werbynská Managing Director Czech and Slovak Packaging Institute SYBA CZECH REPUBLIC



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CEO
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Mr. Dimitris Mandis Chairman AGMPM GREECE



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Mrs. Sujud Al-balawneh Director National Packaging Center -Jopack JORDAN



Mr. Joseph Nyongesa CHIEF EXECUTIVE OFFICER Institute of Packaging Professionals Kenya KENYA



# MEET THE INTERNATIONAL JUDGING PANEL OF WORLDSTAR 2023





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CCHAIRMAN OF BOARD
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LATVIA



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EEG
UNITED ARAB EMIRATES



Mr. Ian Bowbrick
Director
IOM3
UNITED KINGDOM



Ms. Jane Chase
Director
IOPP Institute of Packaging
Professionals
USA



# DISCOVER THE FUTURE OF CONSUMER PACKAGING AND WPO EDUCATION JOURNEY

The Training courses for packaging professionals and students requires a balance of technical and practical information. We need to provide enough technical details to satisfy the needs of professionals, but also make the content accessible and interesting for students who may be new to the field.

We case studies or real-world examples to help illustrate key concepts and show how they are applied in practice. We provide information about industry standards and best practices to help professionals stay up-to-date with the latest trends and developments.

When training programs for students, we explain technical terms and concepts in a clear and concise manner. We provide additional resources, such as links to relevant research papers or industry publications, to help students dive deeper into the topics that interest them.

We have organized the content of our World Packaging Training Program, as follows:

- 1. Introduction to packaging: Provide an overview of the packaging industry, its history, and its importance in modern society.
- 2. Packaging materials: Discuss the various materials used in packaging, including their properties, advantages, and disadvantages.
- 3. Packaging design: Cover the principles of packaging design, including aesthetics, functionality, and user experience.
- 4. Sustainability in packaging: Highlight the importance of sustainability in packaging, including the use of eco-friendly materials, reducing waste, and minimizing the carbon footprint of packaging.
- 5. Packaging regulations: Discuss the various regulations and standards that govern packaging, including safety, labeling, and <a href="mailto:environmental">environmental</a> regulations.
- 6. Packaging machinery and technology: Cover the different types of packaging machinery and technology used in the industry, including their features and applications.
- 7. Supply chain and logistics: Discuss the role of packaging in supply chain and logistics, including transportation, storage, and inventory management and cold supply chain.

We incorporate interactive elements, such as quizzes or polls, their help to engage the audience and make the content more interactive. Additionally, we can include interactive videos, info graphics, or other multimedia elements to make the content more engaging and accessible to a broader audience.

When we focus on changes in lifestyles and trends in technology, we consider the following:

- 1. Sustainability: With a growing awareness of environmental issues, sustainable packaging has become an increasingly important trend. We discuss how packaging professionals and companies are adopting sustainable practices, including the use of eco-friendly materials, reducing waste, and minimizing the carbon footprint of packaging.
- 2. E-commerce packaging: The rise of e-commerce has led to a shift in packaging requirements. We discuss the challenges of designing packaging that is both protective and cost-effective for online retailers, as well as the increasing demand for convenient and reusable packaging options.
- 3. Personalization: With advances in technology, packaging professionals are now able to create highly personalized packaging designs that cater to individual consumer preferences. We discuss how technology is changing the way packaging is designed and produced, and how this trend is likely to evolve in the future.
- 4. Convenience: In today's fast-paced world, convenience is a key driver of consumer behavior. We discuss how packaging professionals are developing packaging solutions that make it easier for consumers to use and dispose of products, such as single-serve packaging and packaging that is easy to recycle.

  5. Digitalization: The use of digital technology in packaging is a growing trend, with companies using technologies for example QR codes and augmented reality to create interactive packaging experiences. We discuss how digital technology is changing the

way packaging is designed and marketed, and how it is likely to impact the industry in the future.

These are just a few ideas to get you interested. As we do research for the lectures, we discover other trends and changes that we further need to explore and educate.

Please contact Mr. Henky WIBAWA, WPO Vice President Education for the training programs.

e-mail: henkywibawa@worldpackaging.org









# LIFETIME ACHIEVEMENT AWARD IN PACKAGING

## AWARD CELEBRATES AND PRESERVES COLLECTIVE ACHIEVEMENTS OF LONGSTANDING INNOVATORS

The Lifetime Achievement in Packaging Award was established with the aim of acknowledging and rewarding excellence in all aspects of packaging science, technology, design and application across every country around the world. WPO recognises that the discipline of packaging is one that is truly global. Thus, the World Packaging Organisation is in a unique position to identify leading practitioners from around the world who have consistently pushed the boundaries in advancing the art, science and application of packaging to serve the needs of an ever more demanding society. These prestigious awards will celebrate and preserve in perpetuity the collective achievements of these innovators for many years to come. Congratulations to the winners!



#### **TOSHIO ARITA**

2023 LIFETIME ACHIEVEMENT IN PACKAGING AWARD

**Owner & President 2015 - Present** 

ARITA PACKAGING CONSULTANT OFFICE

2023 WORLDSTAR PACKAGING AWARDS

Receiving this "WPO Lifetime Packaging Achievement Award" is the greatest honor and joy in my nearly 50 years of packaging life. This honor is not just for me. I would like to express my heartfelt gratitude and share this honor with everyone in the Japanese packaging industry, friends of overseas packaging professionals, and my family for their support over the years. Thank you very much.

Over the years, there are a few words that I have passed on to everyone in the Japanese packaging industry. One of them is, "Packaging is characterized by change. Changes, or signs of the future, always exist outside of Japan." The other is that "packaging professionals have to think much of Footwork, Headwork, Network, and Drinkwork." Footwork to go directly to the site and check it yourself, Headwork to use your brain, Network for information and human networking, and finally Drinkwork to enjoy the achievement with your colleagues. I have faithfully practiced this not only within Japan, but also outside of Japan, such as Germany, Sweden, the United States, Brazil, Indonesia, Thailand and others, and I believe this brought me great joy today.

The appeal of packaging is that it allows us to gain insight into the present and future of the world's economy, society, and people's lifestyles through such a small window. Technically, packaging has an immeasurable breadth and depth.

In fact, I turned 90 years old. However, now that I have received the Lifetime Packaging Achievement Award here today, I can no longer say that my role is over. What I want right now is a "survival ticket until 2030". I sincerely hope to see by myself that the world's packaging industry will work together under the WPO to achieve the 2030 packaging targets for a circular economy. Thank you very much for your time.



# 2023 OFFICIAL WINNERS GUIDE



#### **ThermoShield Temperature Monitoring System**

Company: Caps & Closures Category: Beverages

ThermoShield integrates colour thermochromic technology into the product packaging, which dynamically changes its colour appearance serving as an optical system at a pre-selected temperature switching point without changing or affecting the quality and integrity of the packaging and its performance. See how ThermoShield works (https://youtu.be/-prNtSfa7UM).

ThermoShield's unique colour-switching functionality provides a simple yet effective visual monitoring system and acts as a safeguard across the cold chain. Food, beverage, medication, and other applications where excessively high or low temperatures and time will degrade the contents. Immediate rectification actions can be taken and prevent wastage.





#### **Praise 100% rPET Mayonaise Bottles**

Company: Goodman Fielder

Category: Food

In 2021 Goodman Fielder through its Praise Mayonnaise brand delivered a regional first by launching converting its 330ml squeezy range from virgin PET to 100% recycled PET (rPET). This category leading change has seen the removal of almost 400T of virgin PET from the supply chain without adding any weight to the existing packs.

Traditional rPET conversions using beverage grade rPET typically add a blue colourant to offset the discoloration of the rPET and improve the clarity. Given mayonnaise has a yellowish white colour any addition of blue colourant would cause the the product to display an unappealing green tinge on shelf. Significant work was done with the resin supplier to enhance the feedstock and produce a clearer grade of rPET than is traditionally used.

#### etch&ethos

Company: EGO Pharmaceuticals Category: Health and Personal Care

After the kitchen, the bathroom generates the most plastic waste. The target consumer for this brand is the "Conscious Convenience" shopper, the insight was that she feels like she's had a little win when she finds a product that is great quality and good for the environment. Natural skincare that is good for the whole family, underpinned by science and accelerates the transition to an environmentally conscious home. Etch&ethos is a scientifically crafted body wash and skin lotion that contains %94 naturally derived ingredients as per the ISO16128 standard guidelines for cosmetic ingredients and cosmetic products. The product is packed in 2 HDPE bottles that are made from %50 recycled content in order to retain FDA food safety certification for the plastic which will ensure that the natural product wont be contaminated.



# IDSHIELD HOLOGRAPHIC PROTECTION

#### **IDShield Anti-Counterfeit System**

Company: Caps & Closures

Category: Medical and Pharmaceutical, labeling and decoration

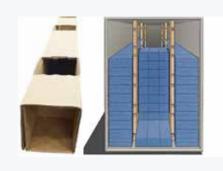
IDShield is a revolutionary anti-counterfeit innovation that evolves your product with an impossible-to-copy authentication integrated directly into the packaging material. This innovation retains 100% material purity and integrity, as well as no additional processes nor increased machine process time during moulding. See IDShield in action (https://youtu.be/voYTtvTvrGI).

IDShield is approved for ANZ recycling streams as it doesn't contaminate the recycling stream. Since no additional or different material is added, it is 100% material purity. Customers can use the Australasian Recycling Label (ARL) system Customers can also choose to integrate the ARL Label into the hologram.

#### **JBS Dunnage Solution**

Company: Opal Category: Transit

The Opal Dunnage Solution has a positive and valuable impact across various industries and consumers in the community and global society. Our dunnage solution is a column-like corrugated structure to limit product movement during container transportation of meat exports. Without the necessary dunnage support, these boxes frequently move in the containers during transportation and can lead to product spoilage and food waste, which is costly for meat and food processors. Importantly, it ensures more food lands on plates by limiting food waste during transportation. Our dunnage solution addresses these challenges and provides numerous additional key benefits.





#### **Coles Home Compostable Coffee Capsules**

Company: Coles Group Category: Beverages

In the past two years, coffee pod sales have spiked by 30 per cent. Australians use 3 million coffee capsules every day, and only 10 percent of these are recycled. This means approximately 8,500 tonnes of aluminum, plastic and used coffee end up in landfill every year.

We know customers want a better solution for disposing of the used capsules. Therefore, we have worked with our suppliers to find capsule solution which customers can compost at home. We are the first major Australian retailer to develop an own brand home compostable coffee capsule. Our coffee capsules are certified to the Australian AS-5810 standard and decompose in the same amount of time as an orange peel. They are packed in a kerbside recyclable box, which clearly displays the Home Compostable Logo and additional instructions to 'place capsules in your home compost bin'.







#### Sugarcane Pulp Hot and Cold Cup Lids

Company: BioPak Category: Beverages

While environmentally friendly hot and cold paper cups were a packaging product already developed, there was a requirement to complete the story by

creating matching, fitting lids for coffee roasters, cafes and QSR situations, like, slurpees and milkshakes.

BioPak have released these lids, certified home and industrially-compostable to Australian standards (AS4738/AS5810) and made from plant-based, renewable resources and are PFAS Free. While many paper-based products can also be composted, the advantage of bagasse is that growing it does not have the same environmental impact as paper, which comes from trees. We spent a considerable time fixing the bagasse weight/thickness to ensure they hold onto cups firmly with a distinctive snap feel when applied to cups.

#### PrimeSeal™ Eco-Tite® Recycle-Ready Shrink Bag

Company: Amcor (Australia and New Zealand)

Category: Food

Barrier shrink bags have been the key packaging format for primal protein packaging for decades. It is also one of the largest non-recyclable flexible packaging formats by volume. As part of Amcor's plan to ensure their packaging was %100 recyclable, reusable or compostable by 2025, Amcor ANZ invested in local Research and Development and talent to produce Ecotite R, a new high barrier shrink bag with comparable performance to existing bags, but free of PVDC and other contaminants that prevent recycling. This also ensured their domestic and export Customers would be compliant with proposed recycling legislation in Australia, New Zealand, the EU, UK, South Korea and other jurisdictions. Ecotite R is recyclable in return to store programs; and will meet future Australian and international requirements for advanced soft plastics recycling. The bags are %6 lighter at the same thickness than the current PVDC based bags, providing a carbon footprint improvement.





#### **Royal Australian Mint Standard Proof Coin Box**

Company: MaCher Australia

Category: Other

This pack is made from a single renewable, recyclable material – molded plant fibre - a blend of bamboo and Bagasse (sugarcane waste). It is a lightweighted solution, reducing the pack weight by 67%, (from 148grams down to 49 grams). This is the first-time molded fibre has been used to create high-end, premium, collectible packaging for the collectible coin industry.

This pack has replaced a box that was previously made from a complex mix of non-recyclable, energy intensive materials -including multiple plastics, metals, paper & board, synthetic textiles and adhesives.

#### Koh Kerbside Recyclable Spout Pouch Refill Pack

Company: O F Packaging/Close the Loop Group

Category: Household

The Koh Kerbside Recyclable Refill Spout Pouch are part of the Roll 'n' Recycle program, and can be rolled into a three-dimensional shape using the pre-adhered label to affix the rolled pouch in place. The bag then goes into the recycling bin at home with other rigid containers, which makes these bags fully kerbside recyclable. This is the first spout pouch to be able to go through kerbside recycling in Australia, and perhaps the world. The innovative pouch is made from 100% mono-polymer PE in line with CEFLEX and other international design guidelines for soft plastic packaging. It is a light-weight, fully recyclable packaging option for the liquid cleaning product. It provides an energy-efficient solution for production and shipping, whilst also amplifying consumer convenience for disposal at end of life.

The use of the Roll 'n' Recycle label increases ease of participation in recycling flexible packaging, and helps reduce soft plastic waste to landfill.





# SENSORY

#### CHANGING THE WAY YOU INTERACT

Caps in packaging have never really interacted with consumers. It is time to change that, bringing an active role that enhances how people interact and buy their products. To see if your product is safe has never been more crucial.

At Caps & Closures, we bring you active visual anti-counterfeit, instant temperature quality assurance, improved ergonomics for limited mobility, and a passive technology that continuously protects against harmful microbes. Through our human senses, we know, and we care.









It's what we do together that sets us apart.



#### **Australian Table Grapes Traceability Pilot**

Company: Result Group - ATGA - Perfection Fresh - Vic Ag - GS1 Aust Category: Fresh Fruits and Vegetables

Australian Table Grapes (ATGA) traceability pilot is one of the largest traceability and authentication projects deployed in Australia. The Table grapes market, worth \$623 million in exports and \$800 million overall, are the biggest fresh horticulture export product in Australia. To assist grape growers to connect with consumers and supply chains as well as consumer safety and quality standards, Result Group introduced the traceability software Product Cloud, the label printing programme NiceLabel, as well as process automation and scanning technologies, designed to collect end-to-end shipping data. The overall concept was to sell more Australia Table Grapes by proving authenticity and provenance.







#### **Smarties Range Paperisation**

Company: Nestlé Australia

Category: Food

Smarties was the first global confectionery brand to switch to paper. The Smarties paperisation project replaces plastic packaging across the single serve cartons, share packs, bags and blocks range across Australia and New Zealand. The recyclable paper uses water dispersible coating technology which allows for removal of non-fibre materials from the paper backing. This is an Australian first for this category. The paper solution meets the ANZ regional 2025 National Packaging Target of 100% recyclable, reusable or compostable packaging. The change in packaging has also allowed Nestlé to switch 250 million plastic packs to paper globally and reduces 20 tonnes of virgin plastic consumption per annum in the Oceanic region. The material has been assessed through the Packaging Recyclability Evaluation Portal (PREP) tool with a recyclable result, confirming that it is acceptable through kerbside recycling and MRFs throughout Australia and New Zealand.

#### **Earthwise Eco Laundry Scoop**

Company: Earthwise Group Limited

Category: Household

Earthwise had been on the hunt for an eco-friendly laundry scoop and found a sustainable solution on our doorstep. Our innovative team worked with Forbes Packaging, to create a fully recyclable cardboard scoop with zero impact on the product's footprint or consumers' wallets. The solution? Simply open your Earthwise Laundry Powder, tear away the scoop inside, fold it together and scoop away. Unique to Earthwise, the new scoop was designed using the same sustainably sourced PEFC-certified cardboard that is used to create our laundry boxes. Providing a 30g measure to minimise product wastage while reducing the use of single-use plastic (4T over 12 months), no extra cardboard gets used either - it's made from the offcut cardboard that would have been fully recycled anyway, helping to close the loop! This answered demand for a laundry scoop, enhancing consumer experience, while not impacting on brand values or product footprint.





#### **FSC Rectangle Paper Containers**

Company: BioPak Category: Food

Plastic takeaway containers that are contaminated with food (think greasy curry, pasta and other oily foods) cannot be recycled and putting them in your recycling bin can jeopardise the entire bin of recycling. Even paper and cardboard that is contaminated with food cannot be recycled. Putting these in your recycling bins could mean a whole batch of recycling is contaminated and sent to landfill.

With this all in mind, our rectangular paper containers and paper lids have been created to replace the humble plastic container. They are PLA bioplastic lined to allow them to carry hot, greasy foods without spoiling/ breaking. Up until now, using bioboard we have only been able to use this method of manufacturing for round paper bowls, however with new machinery and tooling, we have been able to achieve the rectangular shape with the performance of a round paper bowl.

#### **EzyGrip**

Company: Caps & Closures

Category: Medical and Pharmaceutical

EzyGrip is developed as we are experiencing a global trend where national populations are ageing, and many consumers suffer reduced hand strength and dexterity. A more accessible and inclusive design is needed to ease limited mobility issues. Our senior population would benefit from a better ergonomic design that makes opening a product more accessible. With its instantly recognisable design, the multi-lobed with a sinusoidal profile substantially reduces grip force and improves leverage while maintaining a comfortable action. This benefit enhances the confidence and independence of people with hand and wrist strength limitations. Technically, EzyGrip is suitable for all circular closures' existing tooling, compatible with seal insertion, and its unique design improves the capping process by eliminating conveyor jamming. EzyGrip doesn't affect child-resistant performance as they don't change the CRC operating principles nor interfere with the tamper-evidence function. All these make manufacturing EzyGrip cost-effective in comparison to conventional designs.





#### **Brownes Dairy - Craft Renewable Carton**

Company: Brownes Dairy Category: Beverages

90% of Australian consumers are concerned about sustainability. In an Australian first, Brownes Dairy with Tetrapak has launched the most environmentally friendly carton available.

The carton is; recyclable in consumer kerbside bins, features Australian ARL labelling, made from renewable plant-based materials which are responsibly sourced, produced with renewable energy, unbleached, and has reduced layers making it lighter weight for efficient transportation. All of this culminates in a 16% reduced carbon footprint vs. regular tetra cartons.

To further demonstrate our commitment to carbon reduction we have partnered with an environmental restoration charity, Trillion Trees. Supporting the Trillion Trees Challenge to restore lands tree by tree, which will sequester carbon dioxide from the atmosphere. 5 trees = 1 tonne carbon dioxide per





#### Norco 100% rPET Milk Bottle

Company: Pact Group Category: Beverages

In 2021 Norco transitioned their 1.5 litre bottles to 100% food grade rPET and to cut the amount of virgin plastic being used by 125 tonnes pa.
A PIQET for revealed that moving from virgin PET to 100% rPET resulted in:

Saving 215.21 tonnes of CO2 emissions per year - equivalent to planting 323 trees per year Savings of 10,951.7 litres of water - equivalent to approximately 4 ½ Olympic swimming pools. Savings of 12.26 tonnes of solid waste per year - equivalent to the weight of 3 African elephants. The 2025 Australian Packaging Covenant Organisation's (APCO) target for the milk category (PET) is 30% recycled content. By transitioning to 100% rPET, Norco has exceeded this target. Norco's rPET bottles carry the Australasian Recycling Label (ARL) and are recyclable through kerbside collection. The lids are also recyclable.

Also recyclable. Norco run a B2B closed loop program to ensure the used bottles are picked up and recycled when the new filled bottles are dropped off.

#### Ingham's Waitoa free-range chicken and Sealed Air CRYOVAC brand 80% recycled content barrier pouch

Company: Ingham's New Zealand, Sealed Alr New Zealand

Category: Food

From farm to fork, sustainability underpins the community of farmers behind Ingham's range of Waitoa, free-range poultry products. This joint program has enabled a shelf life increase of %40, attributable to both switching to CRYOVAC brand %80 recycled content barrier pouch, and by optimising processing techniques at Inghams. Not only has this enabled food waste reduction opportunities, but the barrier pouch uses %80 less virgin content to protect bone in poultry cuts. The %80 recycled content is sourced from both post consumer and post industrial sources. What is more is that the the pack can be recycled through Softplastics and RedCycle store drop off programs across New Zealand and Australia. The convenient pre-marinated butterflied chicken can be easily accessed via the easy-open tear notch and transferred directly to the roasting pan with no mess, no fuss and no waste! With flavors including Manuka Honey & Rosemary, who would dare waste it!



#### **AUSTRIA**



#### **Hofer Basket**

Company: MM BOARD & PAPER GmbH, MM PACKAGING GmbH Category: Fresh Fruits and Vegetables

The "Fruit Basket" was developed for storing and carrying stoned fruits as an alternative to traditional plastic thermoform trays. Consumers buying fruit in this pack get a plastic-free, sustainable packaging solution that displays the product both from the top of the pack as well as through the integrated air holes in each side. This folding pack, made from flexible and environmentally-friendly brown cartonboard, can be branded and easily adapted to fit different fruit sizes and customer's individual requirements. The integrated round handles give the pack the appearance of a small carrying basket.

This fruit packaging combines functionality with great design and sustainability. Produced flat, the basket unfolds with a simple movement of the hand, offering plenty of space and protection for its contents. The round shape of the two grip holes resembles traditional fruit-basket handles. The design provides sufficient circulation around the fruit and also allows the consumer to see the goods

#### reusable packaging for passenger seat

Company:PAWEL packing & logistics GmbH

Category: Transit

This reusable packaging, specially developed for a project with Siemens Mobility Austria, was optimally adapted to the seats to be transported. The crate is designed in such a way that when folded, both the head sections and the hinged side sections can be inserted into the pallet with frame. folded, both the head sections and the hinged side sections can be inserted into the pallet with frame. A lid is slipped over this to create a compact unit that can be transported back to its place of use in stacks of eight. This reusable packaging replaces the disposable cardboard pallet packaging. Over a period of 2/1 2 years, seats will be transported in 25 rotations. This means that this packaging replaces around 4900 one way packages. Over its lifetime, 107 t of wood and 40.5 t of corrugated cardboard are saved. No tools are required to assemble the packaging. A hole pattern of 42 holes was drilled into the pallet floor, into which M10 drive-in nuts were fitted. The seats are then fixed to the floor by means of screws. The hole pattern was designed in such a way that 15 different seat variants can be fixed in it. In contrast to disposable cardboard packaging

(stacked twice), the packaging can be stacked -4high and thus saves %50 storage space





#### MC-BOX

## DAS REVOLUTIONÄRE VERPACKUNGSKONZEPT FÜR SCHWERE GÜTER.

Die MC-Box ist die erste Transportbox aus Wellpappe kombiniert mit Wabenmaterial. Sie ist leicht, einfach in der Handhabung und steht auch in punkto Stabilität der klassischen Holz-Transportbox in nichts nach. Die Innenraumaufteilung lässt sich dank Inlays schnell und einfach anpassen und die bedruckbare Oberfläche eignet sich hervorragend als Werbeträger. Das Produkt überzeugt auch beim Thema Nachhaltigkeit: Die MC-Box kann mehrmals verwendet und beschädigte Module können leicht ersetzt werden.



#### **Paper Based Tear Tape**

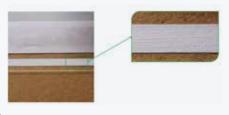
Company: MM PACKAGING GmbH

Category: Packaging Materials and Components

These days, tear tapes (e.g. for envelopes/shipping packaging/e-commerce/food & tobacco packaging) are mostly made of very strong polypropylene (PP) or polyester (PET) film. The film-based tear tapes are often the only feature of the envelopes / packaging made of plastic and which is not biodegradable. In a close partnership, MM Neupack and TANN GERMANY – both plants of MM Packaging GmbH – started research and laboratory testing for paper-based tear tapes:

The choice of a strong paper, offering high stability (breaking force) with the lowest possible thickness, was a key part of the project. This substrate also needed to allow a good coating with self-adhesive material. On one side of the paper, a thicker layer of adhesive is applied.

This solution is used not only for shipping packaging, but are equally used in all industries both in the non-food





#### VACUshrink(re) MEX 55

Company: adapa Group

Category: Packaging Materials and Components

The ideal choice for meat and cheese producers who value sustainability! An optimized raw material mix with three-dimensional stretching during production creates a sustainable shrink bag in which design for recycling has been implemented: no PVDC, PET or PA, maximum 5% EVOH and 95% PE-threshold!

The newly developed VACUshrink(re) MEX 55 continues to provide excellent mechanical and barrier properties and runs smoothly on all commercially available shrink systems. At the same time, it is fully recyclable under CEFLEX guidelines. With this recyclable shrink bag, adapa aims to introduce the circular economy to industrial packaging in the food industry. Industrial packaging is not affected by recyclability targets of household consumer packaging, but is used in large quantities and therefore offers enormous potential for high quality recycling streams. We support our customers in thinking ahead and minimizing the footprint of plastic packaging through recyclability.

#### IT'S PAPER - Series of paper-based security labels, seals and tapes

Company:SECURIKETT Ulrich & Horn GmbH Category: Labeling and Decoration

With the innovative IT'S PAPER series, Securikett has entered a new era in the field of circular economy. The security labels and paper tapes, which are brand new on the market, meet the highest security requirements and, at the same time, they can be recycled together with a packaging unit made of cellulose. In addition to the fact that the labels and tapes fulfill all the properties required to indicate package tampering at first glance, they also have additional unmistakable and aesthetic security features, just like their plastic twins. In combination with digital components, they will not only make the packaging industry safer and more ecological for consumers. Therefore, our innovation is a simple solution for all companies to easily achieve their green goals and protect their products at the same time.

Security seals or plastic packaging tapes on cardboard boxes will clearly be a thing of the past.





#### **MC-Box**

Company: Rondo Ganahl AG Category: Transit

NON-wood - low tare weight - phenomenal stability - flexible application - maximum adaptability - space-saving storage - repeated use - simple assembly and dismantling - ergonomic design - minimal tool use - increased operational security - swift unpacking - 100% recyclable - effective advertising / individually printable (flexo or digital) - increased efficiency in the packaging process - first class practical experiences

These are the keywords that proof that our MC-Box is a winner!

#### Hofer Marktplatz "Erdäpfelkiste"

Company: MM BOARD & PAPER GmbH, MM PACKAGING GmbH

Category: Fresh Fruits and Vegetables

The potato box is plastic-free packaging that allows consumers to easily handle and store the product. The box features a convenient carrying handle and solid crash lock bottom. The freshness of the potatoes can be inspected through the clear cellulose window film, which is food grade, biodegradable and "OK compost HOME" certified. Microflute with Liner from MM Board & Paper.

The smooth surface is easy to print on and there is ample space for various graphic solutions, including recipe suggestions and large barcodes that allow for quick entry in grocery stores. The box features a convenient carrying handle.

This packaging is a fantastic piece of work that you can open and close very easily, with comfortable carrying ergonomics. The shape of the pack is intriguing and distinctive in the retail environment, while the brand communication is perfect. You can also see the product through a biodegradable window.





#### Mondi has sealed recyclability and sustainability with new bacon packaging: Mono Formable PP

Company: Mondi Group

Category: Food

Mondi has helped Austrian food company Handl Tyrol to wrap their bacon in an eye-catching solution that will contribute to a circular economy by keeping materials in circulation. Working closely with Handl Tyrol, Mondi employed its collaborative EcoSolutions approach to ensure the packaging is best for the manufacturer, product, end user and environment. The packaging is certainly eye-catching, while providing excellent product protection. It works within existing recycling guidelines for retailers across Europe and is a great example of more sustainable packaging with no compromises: it still provides the highest level of food protection. With the mono-material PP packaging for Handl Tyrol, Mondi is able able to deliver another fresh food packaging solution that protects the product effectively and can be recycled into existing recycling streams for mixed polyolefins. On top of that, it has an impactful design that incorporates the packaging and reflects the consumer use.



# 放水水

#### Lindt Glückskäfer

Company: Cardbox Packaging

Category: Food

These chocolate ladybugs used to come in a PET thermoformed inset and were wrapped with foil. In this solution, all plastics were replaced with recyclable cartonboard with the goal to support sustainability and still maintain attractiveness for consumers. As these are gift products, the focus is on design and graphics, highlighted with hot foil stamping and a unique packaging construction. The use of cartonboard gave the product many new options to communicate with consumers, and to support sales by impressive packaging with new finishings.

#### Biocat LS packaging - suitable for dispatch!

Company: Rondo Ganahl AG

Category: Transit

Our customer requested a packaging that is suitable for dispatch and visually appealing for their product The Biocat LS, a leakage protection that is certified by DVGW. The device with a weight of about 3 kilos is dispatched all over the world via parcel services, that's why we implemented a solution with bumper. The needed suitability was proofed by tumble tests. Although the packaging consists of two major parts, it can be produced with one single cutting tool. This reduces storage as well as costs for production. A further highlight of this packaging is hat thanks to specific extracts, customers are able to see not only the device but also its supplies at the very first glance after opening the box.

Features at a glance: - Due to the material of the packaging, the content is protected against external mechanical impacts. - Details about the supplies and operating instructions are printed on the packaging. - Specific extracts enable customers to get a first glance on the product and its supplies. - The 2 parts of the packaging can be produced with 1 cutting tool. - Single-Material packaging that can be recycled very easily. - Integrated space for shipping label on the front side of the packaging.





#### Corrugated board wedge

Company: Mondi Category: Transit

Our new corrugated board wedge is designed to help store and transport paper rolls safely - and will mean the conservation of resources as well as costs.

It was designed to replace existing wood and plastic wedges, which caused dirt and wood splinters in sensitive production areas. Handling of these existing wedges was impractical and dangerous, as they had tobe screwed onto the pallet by hand using a cordless screwdriver.

Our wedge is lighter, cleaner and offers convenient and fast handling with comparable safety performance. In addition, it is reusable and 100% recyclable.

Designed as a double wedge, an elevation on both sides prevents the goods from rolling away. An integrated tear thread releases the fixed roll and provides a user-friendly opening, eliminating the need for further tools.

#### **Flying Orchid**

Company: MM BOARD & PAPER GmbH

Category: Other

The initial challenge for this pack was to be able to hold an orchid plant upside down! The carton size and shape ensures that the product displays well, is fully protected through the supply chain and is easy to pack and handle. The interior of the giftpack is created 100% from recyclable cartonboard which also functions as an easy-to-carry handle. The gift pack is simply and colourfully printed and has an unusual shape – features which combine to make it highly visible.





#### Ski-Packaging (replacement for PE film)

Company: Dunapack Packaging Strasswalchen

Category: Other

Innovative packaging made of corrugated cardboard that meets current environmental protection standards as well as logistics and shipping requirements.

Blizzard Sport GmbH approached us to develop an alternative solution for shipping skis from the producer to the sports retailer for the NORDICA brand, initially primarily for the overseas market, without PE film.

Additional advantages of this packaging are its improved product protection (compared to foil) as well as its easy recycling in the wastepaper container.

This packaging is a good example of the fact that profitability is not the only focus for producers. Awareness of sustainability is becoming increasingly important > WHEN, IF NOT NOW!



#### **BELGIUM**



#### P&G ECOCLIC® Box for liquid laundry capsules

Company: Procter and Gamble

Category: Household

P&G patent pending new packaging innovation has demonstrated to meet all requirements: - Solution is certified 'child impeding closure' - Fulfills moisture/capsules protection requirements - Recyclable in standard paper mill process, FSC certified and using 70% recycled fibers minimizing impact on the environment. - Pack dimensions engineered to optimize transportation (50% more packs/pallet) and to enable reducing number of trucks on roads. - Tactile marker embossed on the outside of the box on the top panel. Shaped like a washing machine. Developed by P&G helping people with sight loss identify buying detergent. - Navilens QR code, developed code for visually impaired. Once the NaviLens App is installed on a phone, you scan the code, it will open important information about the product, pack and ingredients via audio-description as well as large and readable text on your phone.

#### **BRAZIL**

#### **Ambipar Environment**

Company: Ambipar Category: Other

A technology that uses waste from the pharmaceutical industries (collagen capsules) and the cellulose industry (sludge) in the production of greens.

Leftovers from the production process of medicine capsules are transformed into a "packaging" of seeds that has various benefits that range from the protection of the seed against the sun, insects and fungi, or even its nutrition by means of the natural composition of the capsules for germination and applied for scale reforestation by means of an automatic dispersal device (drone).

The packaging that houses the biocapulas (made with waste from the pharmaceutical and cellulose industries) has a design thinking concept with the objective of facilitating the visualization of the product internally (by means of a transparent strip). Its size improves handling ergonomics and exposure in existing commercial gondolas. Its composition on Kraft paper with a thin layer of recycled polymer allows the conservation of the biocapsules for a long period that protects against humidity and oxygen, thus prolonging the useful life of the seed. The "zip look" of the packaging allows the consumer to open it and date it without damaging its structure, thus allowing it to be used only in the amount desired.





#### Veja Power Nature Multipurpose capsules

Company: Reckitt Category: Household

Veja Power Nature capsules is an eco-friendly concentrated multipurpose cleaner formula in an exclusive capsule packaging. This concentrated refill is presented in a recyclable polypropylene plastic capsule format, reducing 85% of the plastic consumption (versus regular packaging), 92% reduction of the number of trucks for transportation with a consequently reduction of the emission of polluting gases. The packages were designed with the strictest criteria to be in resonance with the circular economy, certified by CETEA and in partnership with EuReciclo. The regular bottle can be reused 25 times with the capsule refill and this bottle is the first bottle on cleaning multipurpose category composed by 50% of recycled PET resin in Brazil. The carton has a QR Code printed to explain more about the packaging composition, uses, recyclability and formula. Innovation, technology, sustainability and efficiency associated to create a cleaner and healthier world.

#### O.U.i EDP

Company: Wheaton Category: Luxury

Like the entire O.U.i line, the women's EDP followed French international standards with sophisticated finishes. The details of the form, the delicate contours that reflect French savoir-faire. The glass bottles are transparent and with minimalist decoration. The highlight is the thickness of the bottom of the packaging, the refined relief and the labeling, inspired by French products. Contours and a sophisticated pattern envelop the glass bottle and bring a matelassé effect to life. The design adopted brings the charm of transformations in high perfumery. The glass is precisely worked and forms a unique composition, which brings more elegance. We use a different proposal for the bold thick background. We carried out a special work on the mold so that the concentration of vitreous mass presented an elegant aesthetic in the final product. O.U.i brings consumers a sophisticated perfume, body and bath line. The entire design of the brand, including packaging, was inspired by the French way of life. One of the challenges was to combine the taste of Brazilian and French women in the same bottle. For this, experts had the mission of translating the French "savoir-faire" (know-how) for packaging. The packaging of the women's O.U.i EDP is proof that luxury can also be sustainable. It is the result of rigorous work to meet the needs of consumers who are increasingly aware of the importance of sustainable solutions.





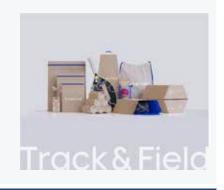


#### Track&Field: Sustainable Packaging

Company: FutureBrand São Paulo, Antilhas Embalagens

Category: Other

Firmly established in sport fashion, Track&Field needed a breath of fresh air: connect more with people's needs, redefining their relationship with sport and the environment. Track&Field's entire packaging portfolio was renewed for more sustainable solutions: packaging quantities, formats, and dimensions were rethought and redesigned in a useful and conscious way. Now they are made of paper, with few print areas. They also have intelligent fittings that give the proper structure to each box format and guarantee the use of less material in their manufacture. Graphic elements that could hinder recycling were eliminated, as was the use of plastic. The logo was responsively redesigned, taking on thinner lines connected to the sensations of lightness and wellness, which were adequate for the different packaging formats. Blue, the brand's institutional color, appears inside some boxes, revealing the brand's essence and generating high recognition and emotional appeal to the public.





#### The First Fertilizer Bag to Bag® 100% r-PET.

Company: PACKEM

Category: Packaging Materials and Components

On a planet where 30% of the population suffers from food insecurity, fertilizers play a key role, and industrial packaging is responsible for ensuring that these fertilizers, seeds and other valuable resources reach the rural producer. In this context, Packern has combined the innovation of packaging that promotes sustainability and the reduction of environmental impacts, with the aim of minimizing waste in the food chain.

The main challenge was to adapt a package made from a PCR source in order to maintain the properties of the fertilizer, thus guaranteeing the parameters and characteristics of the material that directly impact the quality of Agriculture. Overcoming this challenge, the project was expanded to seeds and grains.

#### NATURECYCLE - CIRCULAR PACKAGING FOR E-COMMERCE

Company: Plastiweber Category: E-Commerce

The growing e-commerce market was looking for solutions for the use of plastic packaging, as it was an excellent option in terms of performance and cost for the delivery of products. But the existing solutions brought a greater carbon footprint (cardboard, Kraft paper, compostable plastics). Thus, the great challenge was to maintain the benefits of plastic and reduce its impact, creating an option made mostly with recycled raw material, PCR. Thus, we bring to the market an e-commerce packaging made of 75% PCR plastic, with great technical innovation, using reverse logistics, which maintains socio-environmental projects and provides communication with the market through a QR Code, which presents the final consumer with the benefits generated throughout the packaging cycle, also creating a circular ecosystem activating brand-owners, retailers, cooperatives and social projects, for the correct destination of plastic waste, providing socio-environmental benefits and reducing the carbon footprint of brands.







#### Stand-up pouch 100% polyethylene Ritto

Company: Antilhas Embalagens Category: Food

The mono-material stand-up pouch is a packaging that increases recycling efficiency and makes it possible to return the product to the chain, in a way that helps to improve waste management by using 100% polyethylene without lamination as a structure, a solution developed through a partnership between Braskem, a Brazilian petrochemical company, and Antilhas. In addition, has a differentiated printing process, which takes place on the outside of the reels using gel ink. This guarantees superior printing quality, with the same gloss as the laminated material and the possibility of external finishes with a sensory appeal, using less volume of ink. This combination generates a higher quality of post-consumer raw material generated by the recycling of the package allowing a wider range of applications for new products. In 2021, Arroz Ritto was launched with this packaging, marketed by the brand Mãe Terra, which specialized in natural and organic food products.

#### Make B. Cocoa - O Boticario

Company: MAD Creative

Category: Health and Personal Care

Make B. by O Boticário united two great passions its consumers: makeup and chocolate!

Using both consumption areas, we unified the aesthetics of food and cosmetics, using chocolate and its tones as prominent elements. We also added a surprise element as the packaging film is imitating a chocolate bar.

The product formulas have cocoa powder and cocoa butter that, in addition to moisturising and softening the skin, containing rich ingredients with nutrients and antioxidants.

The main objective is to bring the chocolate as a protagonist. With a different format and an innovative proposal we aimed to arouse the desire to collect or gift away through passion and visual desire.

Its shape is directly related to a chocolate box/bar. In addition, the primary packaging has a brush and mirror, providing practicality when applying the product. We explored thoughtful details, for example, the embossing of the bulks that imitate the chocolate squares.







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#### **Nescafe Origins of Brazil Colmeia**

Company: FutureBrand São Paulo

Category: Beverages

In 2021, Nescafé, AgroBee Institute and NovoMel joined forces to honor a crucial coffee producer: the bees. To tell this story, Nescafé Origens do Brasil Colmeia was created. A product born with a purpose: to collaborate, care and protect bees. We created a playful, attractive, engaging and reusable packaging, that reflects innovation, sustainability and ethical luxury, with a clear and inviting storytelling. The packaging raised awareness towards the coffee production chain and the importance of bees in it. Also, to address upcycling, the packaging base was made do become a cachepot after its usage, creating a second life for the packaging. The recipient can be used as a flower vase, inviting the consumer to the brand storytelling once bees need flowers to feed themselves.

We created a purpose-oriented packaging that aimed to be delightful, playful, engaging, and reusable. A packaging that reflects innovation, sustainability, and ethical luxury with a clear and appealing storytelling. The botanical illustration style also brings the bucolic feeling of the countryside to the table, bringing people closer to the farms.



#### **CANADA**





#### **Head & Shoulders CLINICAL Scalp Calming Treatment Tubes**Company: Viva Healthcare Packaging (Canada) Ltd.

Category: Health and Personal Care

Head & Shoulders CLINICAL Scalp Calming Treatment Tube leverages a custom applicator for precision dispensing and a striking shelf presence. The custom applicator was developed for precise application to specific areas of the scalp, multiple times a day. The applicator was injection-molded in a custom-coloured pearlescent blue with a 3mm orifice, and welded onto a colour-matched D38.5 x 130mm tube, for a silhouette that forms a noticeable 'V' shape. The tube is decorated with in-mold label technology, using an EVOH barrier, and a full coverage blue cold foil print with white silkscreen font and aqua accents. Tube, applicator, over-cap and in-mold label are all made of polypropylene, for a mono-material design that is compatible with the rigid Polypropylene recycling stream, in accordance with the Association of Plastic Recyclers Design Guide for Tube Recyclability. It is small enough to take travelling, so you never have to part with it.

#### CHILE

#### LifeSpan Copper Based Film

Company: Amcor Chile - Copperprotek Category: Food

Amcor Flexibles Chile created an unique and high quality packaging solution with LifeSpan™ Copper Based Film. It is an innovative and disruptive packaging solution for cheese or fresh or processed meat such as ham, bacon, fresh chicken, etc... thanks to its specific addition of copper particles in the manufacturing process of the packaging solution. LifeSpan™ Copper Based Film, a laminate, contains copper microparticles that inhibit the development od microorganisms inside the packaging, allowing to increase the shelf life of product packed up to 250%. The material was recently created through a collaboration between our Amcor Flexibles Chile and biomaterial technology company CopperProtek. The partnership aimed to discover whether antimicrobial qualities could be transferred to plastic packaging by adding copper microparticles to the plastic resin in the film production, extended the shelf-life of fresh food products.



#### **CHINA**



#### Niulanshan - Batik Charm (Chinese spirits)

Company: SHENZHEN BAIXINGLONG CREATIVE PÁCKAGING CO.,LTD / Venus Team Category: Beverages

The box type is 3D printed with degradable water absorbing resin SAP material, and the vertical strip texture is rich. The design of dot, line and surface is very interesting.

It has a distinctive national style. Blue indigo is used to collide with gold in color to strengthen vision. Its tone is simple and elegant, and its style is unique, which meets the requirements of modern aesthetics.

#### Mead Johnson Enfinitas Infant Formula Milk Powder

Company: Mead Johnson Nutritionals (China) Ltd. / Packaging Innovation Team (Tianguang Li, Keqing Chen Sa Xu)
Category: Food

The packaging of Mead Johnson Enfinitas, its shaped can and bi-injection flip-top is unique around the world. This tailor-designed shaped can, is convenient for consumers to grasp and open, and has obvious brand image on the shelf among global infant formula milk powder packaging.

The packaging of Enfinitas, has clear brand recognition for its beautiful shaped can design, using friendly structure by being convenient to grasp and scoop the powder. With smart design and binjection technology for flip-top, consumers can open and close it with one hand; moreover, the doublewall sealing structure inside the flip-top, ensures the powder to be effectively hygiene blocked by the oxygen, moisture and sunshine.









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#### FlowerTea Gift Box

Company: ZRP PRINTING GROUP CO.,LTD / Fuyin Li  $\,^{\backprime}$  Xiaoqin Li  $\,^{\backprime}$  Yuhan Chen  $\,^{\backprime}$  Huilan Liang

Category: Point of Sale

When opening the gift box, the window of the front illustration opens like a love letter, and some emotions you want to express can be customized to help people open their hearts and break through the barriers of expression.

This high-end brown sugar flower tea gift box project is used to convey emotions. For emotions, whether it is love, friendship, or family affection, it helps people to break through some barriers to expression.





#### Jiannanchun & Sanxingdui (Bronze Age) wine packaging

Company: Chengdu Handing Art Co. LTD/Xiao-lin Chen, Chen Peng Category: Beverages

Jiannanchun & Samsung Dui Wine packaging design, based on the influence of two IP, ingenious conception of Jiannanchun's inherent container modeling and bronze mask, contains the god of bronze and the magic of wine, retain two characteristics without losing innovation.

The upper part highlights the mystery and magnificence of the bronze mask, and the lower part is decorated with thunder cloud pattern and dense air, which complement each other and highlight the unspeakable beauty of the fierce. The bottle body is full of round carvings, with undulation and comfortable feeling. Glass spray glaze is selected as the material to achieve heavy relief on the surface of the shape, which is also environmentally friendly and recycled. Bottle cap like bronze column, ring decoration taotie grain, follow that long time. Green leather paper sales packaging using clamshell structure, metal texture gold skeleton and lock, more strengthen the material contrast. The plane visual theme is clear, the graphics and text are arranged according to the primary order, and the information is clear. The box is embedded with two mask-shaped wine glasses, with gradient color, which is clever and lovely.

#### Row of Su wine (commemorative edition)

Company: Jiangsu Yanghe Distillery Co., Ltd. / Liandong Zhang \ Huashuang Liu \ Xueqian Zhang \ Chenchen Li \ Category: Beverages

The first row su wine and the dance poem drama "Only This Green" jointly cooperate, to create the first row Su wine thousands of miles of rivers and mountains products, the picture of the famous painting "A Thousand Rivers and Mountains" applied to the beautiful first row wine.

Bottle and boxes reproduce the four pictures in the picture of thousands of rivers and mountains in the form of hand-painted paintings. The box body corresponds to the bottle body one by one, and a single bottle and box can be painted separately, combined to become a picture of rivers and mountains.









#### Ecofriendly Mono PP pump-All plastic pump no metal

Company: Tianzhou Packaging (Suzhou) Co., Ltd. / Frank Ding Category: Packaging Materials and Components

All-plastic pump is made of PP material, no metal springs and steel balls. No disassembly, can be sorted and directly used to recycle. Suitable for closed-loop management and recycling. Dispensing from 0.2ml to 30ml, suitable for emulsion pumps, spray pumps, viscous material vacuum tanks, foam pumps, food pumps, pharmaceutical packaging materials.

Not only have the functions of a metal spring pump, all-plastic pump also has advantages that metal spring

Not only have the functions of a metal spring pump, all-plastic pump also has advantages that metal spring pump doesn't have, such as being used for strong acid contents, fluoride toothpaste, special reagent drugs. Development of all-plastic pump has created the conditions for mandatory recycling of packaging containers with pumps.

#### Zero glue self-locking lightweight express packaging

Company: Hangzhou Bingxin environmental packaging Co., Ltd / YouQuan Wang Category: Transit

This design has three major elements of cost reduction, green environmental protection and security and theft prevention, so that the express packaging can be lightweight, green and pollution-free

① Cost reduction: under the same volume, the cardboard area used is 20-25% less than that of the aircraft box ② Green: self-locking structure, no need to use tape to seal the box, Zero plastic and no pollution ③ Security: Hidden self-locking structure, security







#### China National Export Commodities Packaging Research Institute

China National Export Commodities Packaging Research Institute (CEPI) was established in 1974 by the Ministry of Foreign Trade and Economic Cooperation with the approval of the central authorities and the State Council. It is a central budgetary institution approved by the State Commission Office for Public Sector Reform.

Approved by the State Council, CEPI represents China as a member of the World Packaging Organization (WPO) and the Asian Packaging Federation (APF) to participate in relevant international activities. Joined the International Association of Packaging Research Institutions (IAPRI) in 2005.

Approved by China National standardizing committee, CEPI serves as the Joint Secretariat of ISO / TC122 / SC4 packaging and environment sub-technical Committee (China / Sweden), Chinese Secretariat and domestic technical counterpart of the international organization for standardization. Secretariat of packaging and environment sub-technical Committee of national packaging Standardization Technical Committee (SAC / TC49 / SC10).

With the approval of the Ministry of Commerce, CEPI undertakes the responsibilities of the export commodity packaging technical service center of the Ministry of Commerce, has a national recognized laboratory with complete equipment and instruments supported by the United Nations, and acts as a testing and appraisal institution of scientific and technological achievements in the foreign economic and trade system recognized by the Ministry.

Approved by the Office of the National Awards for Science and Technology, CEPI took the responsibility of science and technology award- PackStar Organizing Committee of Recommending Packaging Design. The Secretariat of the Organizing Committee for recommending the works of WorldStar is also established here.

With the approval of the National Press and Publication Administration, it hosted the academic journal of Green Packaging.

https://www.cepi-china.com/

#### **China Star**

PACKAGING

China Star was founded in 1983. The design works come from all over the country. The jury is composed of well-known designers, professors and industry representative judges from all regions. China Star is a professional evaluation activity with the most historical value, academic nature, industry authority and commodity form symbol in China's design field. Effectively connect domestic design circles, design art colleges and industry organizations. "Encouraging innovation and supporting originality" is the evaluation purpose of China Star.

**Evaluation object:** designers, institutions, professional colleges and departments, design related enterprises, commodity production enterprises and school teachers and students engaged in design, and their design works and production products are the objects of voluntary evaluation and declaration.

**Evaluation scope:** logo, brand, packaging, poster, books and periodicals, illustration, font, cultural and creative design works.

#### **PackStar**

PackStar was founded in 2005. The jury is composed of well-known packaging designers, professors and representative judges of the packaging industry from all regions. For designers and students majoring in packaging, PackStar Award (professional group) and PackStar Creative Award (student group) are set up respectively.

Professional group: engaged in packaging design institutions, designers, commodity production enterprises, etc.

Student group: college or fresh graduate students (including graduate students), junior college students and vocational school students.

**Scope of evaluation:** the declared works of the professional group shall be the original packaging design works designed and put into operation in recent three years, and the declared works of the student group shall be the original packaging design works of the students themselves. The declared works can include the following seven categories of product packaging design and packaging creativity:

- 1. Beverages, tea, tobacco and alcohol;
- 2. Food;
- 3. Medicine, health care and beauty products;
- 4. Light industrial products and household products;
- 5. Mechanical and electrical products;
- 6. Cultural and creative
- 7. Other products.

#### Tianchao 113

Company: Shenzhen Polytechnic / Guang Yu

Category: Other

The shoe box is light and environmentally friendly and adopts kraft paper honeycomb paper core as packaging material, which has unique aesthetic feeling of honeycomb paper and great temperament; The corrugated paper on the front of the package steps out the shoe print on the sole, which means step by step and down-to-earth. The shoe print also reflects the brand name, which is simple and direct.

The innovation is to try to use honeycomb paper core materials to fix and protect the product objects through die-cutting. The shoe print on the front of the package adopts the process of pressing concave and convex, and the design is very simple and fashionable. In addition, the packaging uses very little ink, which is very low-carbon and environmentally friendly.





#### Pulp Molded Packaging of Commemorative Coins for the 24th Winter Olympic Games

Company: Shenzhen Wing Fat Yin Yi Packaging Design Co.,Ltd./ Daisen Xie、 Huan

Wang Ying Li

Category: Luxury

The packaging materials used are made of fast-growing fibers. They are environmentally friendly and biodegradable. In addition, our molded fibers have excellent shock and pressure protection capabilities. It was designed to be simple yet graciously elegant, aligned with the theme, and the atmosphere created allowed the product to be glorified.

Design is combination of natural materials and craftsmanship. The imprint depicts snow tread marks, marking the exploration to the limit. The blue light lit up when the packaging opened, triggered by sensor. Backlight glorified the coin like a winner. Natural materials made from bamboo and bagasse, biodegrade in 68 days.

#### Lao Jiu

Company: Shenzhen Wing Fat Yin Yi Packaging Design Co.,Ltd./ Daisen Xie Yongchi

Category: Beverages

Our design combines environmentally friendly and biodegradable molded fibers with a patented authentication mode. The "one box, one spirit, one chip" intelligent anti-counterfeiting system would authenticate the spirits, and counterfeits cannot lock the box.

Equipped with a tamper-proof closed-loop traceability system that records production, transportation, sales, and flow information, allowing the product to be traceable. Use fingerprint lock, combination lock, and mechanical lock to achieve multiple security guarantees. We can apply this game-changing technology to premium products like jewelry, antiques, and luxury goods.







#### Linshui Yuquan - Masterpiece

Company: Chuangyi Packaging Design Co., Ltd. in Chengdu, Sichuan / Feng Yi Category: Food

The idea vividly reproduces the winemaking scene by enterprises under the Dabie Mountain and the Six-kilometer Cave in Anhui Province, China. Natural environmentally-friendly material formed by resin-coated plastic film makes the packaging resemble a mountain. The bottle deeply seated in the "mountains" represents the core concept of the Dabie Mountain Mellow Cave Liquor. Its overall shape is like a "born seed of life", just like the gift that nature has given us, which reflects the ingenuity of the company to respect nature and gratitude to nature. The bottle is painted with a decorative painting of a wine hole which is identified by the Shanghai China Records Headquarters as the largest single wine hole), which is simple yet exquisite.

The bottle body is made of black glazed enamel, expressing the pure style of simplicity, originality, roughness. The lower pattern of jade color and ice cracks give consumers an unparalleled touch and visual experience.

#### "Enjoy It" Chess Pack

Company: Stora Enso China Packaging / Anxin Xiang、Guangwei Sun Category: Toys

"Enjoy It" is a comprehensive board game that can attract the whole family to participate together. The unique design combines appearance attractiveness and functional convenience together, it aims to strengthen intellectual enlightenment of children, enhance parent-child relationship, and reduce negative influences of electronic products abuse on kids.

The cartoon style combines the classic no stalgia of famicom to stimulate the mood of parents and kids at the same time. Separate storage space design, combined with sales package & checkerboard mesa integrated structure design can complete the conversion between storage mode and play mode quickly and handily.





#### I like TO move it!

Company: Smurfit Kappa Czech s.r.o.

Category: Transit

Our customer is manufacturing and selling pressure water heaters. The challenge was to package the new TO20.1 model in such a way that we removed all plastic, speed up the heater assembly process and increased the product protection. We have therefore developed a robust two-part protection. The bottom part of which will facilitate the movement of the product through the assembly line and thus facilitate also the handling of the fifteen-kilogram heater. The packaging is 100% plastic-free because we eliminated the polythene bag. It provides more than enough protection against denting the thermometer and thus eliminated all complaints.

Our sustainable solution brings a 93% reduction in carbon footprint and saved 6.6 tons of CO2 emissions.









#### **Transformer**

Company: Smurfit Kappa Czech s.r.o. Category: Transit

For 9 types of heating units with different lengths from 350mm to 700mm the customer requested a new packaging providing better protection. They were using 4 different boxes and wanted to reduce it. Our solution? Just ONE UNIVERSAL packaging for all 9 product sizes - a telescopic tube that copies the length of the product and prevents it from moving. We replaced the bubble foil used to protect the head of the heating unit with a fixation that ensures sufficient deformation zones. We protected as well the tip of the heating unit as well. No more tape and bubble wrap, the packaging is 100% plastic-free and reduces the packaging s carbon footprint by 58% (2.2 tons of CO2).

#### Míša Multipack

Company: Cardbox Packaging

Category: Food

The new multipack for Miša cheesecake desserts brings a family pack to the market, which is not only cost-effective for the end consumer, but also emphasizes sustainability, as it is made of recycled paper that is fully recyclable as well. The hotmet applied on the bottom part, covered with a silicone strip, facilitates subsequent assembling during the final packaging of the products. The finished carrier can hold up to four cheesecakes, making it easy to handle when purchasing larger quantities. Short messages within the traditional graphics guide consumers to sort waste correctly and thus also has an educational function.

Cardbox Packaging has used recycled material that is also recyclable. A hotmelt adhesive is prepared on the bottom of the carrier, but the amount does not affect the recyclability of the product. Silicone strip enables customers without automated lines to efficiently package and seal their products. The flat design allows the packaging easy transport to the customer, saving plenty of space during the transportation. The following assembling process is fast and efficient at the same time, and the finished carrier can hold up to four cheesecake desserts. The final idea was to make it easier for end consumers to handle large quantities of goods.





#### Universal fixing of glass and glass doors

Company: Servisbal Obaly, s. r. o.

Category: Transit

The universal fixing of glass and glass doors fully replaces the original design of transport packaging. All-purpose design provides wrapping of the entire product line. Thanks to its light weight, it facilitates handling and helps to reduce transport costs. It is not necessary to use adhesives when wrapping the product. The cardboard sidewalls fix the product, protect its sensitive edges and provide the required stability for safe transport. The special fixing flaps adapt to the size of glass and hold it securely in the required position. The cardboard casing protects glass in the central part and increases protection against side impact. The original pure design is completed with practical elements for easy handling. One type of material makes complete recycling possible. Average weight of glass doors is 20 kg.

#### **VAFO WET PRIVATE LABEL BOX**

Company: LOGIK s.r.o. Category: Pet

Effective way of B2B communication for 75 countries of the world in one time interval. The box presents a selection of the wet food portfolio of all VAFO products (EU). The "BECOME A CHEF WITH VAFO" concept presents the available production capacity, the offer of production of private brands for dogs and cats. The surprise is a designer removable pot full of real products, which is also a souvenir, catalogs in the style of a restaurant menu. Laminated product from corrugated and smooth cardboard. The overall concept consists of 13 glued parts. Materials such as E, EB, BC and GC1 350 g were used. The surface treatment is glossy laminate for a more eye-catching appearance of the box.





#### Universal fixing of charging devices

Company: Servisbal Obaly, s. r. o.

Category: Transit

The universal fixing is designed for various types and sizes of charging devices for electric vehicles and electrical bicycles. The packaging is made of green, fully recyclable material, thus it fits into the IONT brand philosophy. The fixing insert made of a single piece of cardboard provides perfect protection while separating the individual accessory parts. It is not necessary to use adhesives when putting packaging together. Packaging design corresponds to the customer requirements, who placed emphasis on maximum product protection, variability of use and low price. Simple but effective design does not increase the price of packaging.







#### "Simple Loading" packaging solution for the transport of baby incubators

Company: Unipap a.s.

Category: Medical and Pharmaceutical

The "Simple Loading" packaging solution for transporting baby incubators is designed for simple and safe packaging by the equipment manufacturer, but also for user-friendly and clear unpacking of the product by the customer. This new concept replaces the original inconvenient completely wooden complicated packaging.

"Simple Loading" makes maximum use of environmentally friendly corrugated board with partial protection of sensitive product parts made of technical foam. Loading the heavy incubator is simple even without handling equipment. The specially designed pallet quickly turns into a ramp on which the product is driven during packing or rolled down during unpacking. The lightweight folded corrugated cardboard support ensures easy and secure fixing of the product. All packaging parts are clearly marked with PN printing which simplifies packaging, eliminates errors and makes unpacking the product easier for the customer.

The bonus is cost and time savinos.

#### EXTRA SKIN packaging for Tremonito and other products from Třemošenská uzenina

Company: Třemošenská uzenina s.r.o.

Category: Food

The new type of packaging for meat products of various shapes brings a significant and progressive change in packaging for the entire segment. Sausages, meat and salami from Třemošenská uzenina are thus packed in packaging that is friendly to the environment. The reduced amount of plastic in the packaging and 100% manual separation of plastic from paper makes recycling easier. High degree of vacuum, high-quality barrier material that tightly surrounds the product and is sealed to the entire surface of the pad. If several products are packed, gradual unpacking of the products is possible, which contributes to reducing food waste. The spices remain completely on the meat and do not stick to the wrapping film. The packaging is also effective for the logistics chain, where it uses the dimensions of the E2 crate as effectively as possible.

The back of the package describes how to handle the package after use. The consumer is encouraged here to manually separate the materials and then dispose of them appropriately. The separation also happens when the product is opened, and separation is thus a logical consequence. There is a significant reduction in plastics, when it is possible to make attractive graphics on the packaging and thus stand out on the shelf with cold meats.





#### **All-In-Fix**

Company: Smurfit Kappa Czech s.r.o.

Category: E-Commerce

The goal was to find packaging for 360 dimensional variants of alarm clocks without using a bubble wrap. Our innovation and development resulted in a completely universal and revolutionary insert for e-shops. The size-variable insert has breakthrough locks, which are used to fix different sizes and shapes of products. Important part of the insert is an integrated adhesive tape, which closes the insert tightly, but above all, thanks to the tape the insert is then glued into the box. And it holds. With this innovation, we accelerated the packaging process by 77%, we eliminated 88% of plastics and reduced CO2 emissions by 21%. In total, the new packaging saved EUR 21,000.

#### **EGYPT**

#### **Blender Insert Replacement**

Company: UNIPAKNILE Category: Household

The blender EPS replacement partition eliminates the usage of petroleum based products and replaces it with corrugated board that is certified as a sustainable alternative all while maintaining the required ISTA 1 protection levels. Moreover, the replacement of petroleum-based fillers did not affect the size of the shipper box or the capacity of a container load during shipment.

The blender EPS foam replacement partition objective is to transport the fragile kitchen appliance from manufacturing to retailers and end users, with highest protection and least cost. This box replace EPS fillers with corrugated packaging fillers, creating a more sustainable overall package, without impacting the logistics or the performance requirements of the packed product. Moreover, the simple design of this EPS replacement does not require any changes to the assembly line in terms of additional work force needs.







## BEGAUSE THE WORLD NEEDS

# BETTER PACKAGING MATERIALS



The WorldStar winning wood-fiber-based packaging solution was invented to respond to a call from Puukin Tila, a Finnish farm, to replace plastic in onion packaging.

#### The Packaging

- Recyclable
- Renewable
- Soft & Flexible
- Strong
- Porous and Breathable

#### Innovative and sustainable packaging solution for enameled sinks

Company: DS Smith, Finland

Category: Packaging Materials and Components

This innovative and sustainable packaging solutions is fully recyclable mono-material solution made of 100% renewable sources. Functionality has been on the top when designing the solution. One package fit for all 13 different sizes and shapes enameled sinks and protect them also from side-collision. The locking mechanism is easy to use, and it ensures excellent protection. After use packaging is easy to recycle in existing recycle system. The material use has been optimized, just like supply chain, which decreases indirect costs and emissions. This package helps customer, Temal Oy, to act more sustainably. The solution is excellent example of plastic replacement because all plastic (EPS) inner parts have been replaced with corrugated cardboard. This new design decreases the number of different kind of packages needed and the space needed in the warehouse without compromising the product safety and the brand.



#### Every bird is special - as they are! Yogurt cups' paper-based lids designed by consumers/end-users

Company: Pyroll Packaging Group Ltd

Category: Food
The individual consumer's voice is getting stronger, and personalization is a huge megatrend. Pyroll Packaging ang PackageMedia created a new interactive way to use Arla's yogurt jars' paper-based lids. This campaign "Every bird is special- as they are!" was built from good things from the idea to production; Consumers could draw their own bird

is special as they are: was built from good things from the idea to production, consumers could draw their own bird designs and those were published on the gallery website and a big part of those designs were also published on yogurt jars' lids. https://luontopluskampanja.pgm.fi/
Best of all, customers had the chance of going into stores and seeing their very own designs on real-life yogurt jars' paper-based lids of Arla Luonto+ brand. The outcome was groundbreaking: the digital and physical world merged in

Pyroll Packaging Group combined manufacturing set-up, digital back end, and e-commerce knowledge by PackageMedia and fulfillment services in printing and offered to Arla brand a service for consumers to create something of their own for Arla's popular product range. Part of the Arla's sales margin was given to the NGO The Mannerheim league for children welfare https://www.mll.fi/en/ to support the development of children's friendship skills. Here was a strong sustainability approach by using paper-based lids and adding a new task to those. This campaign had also an incredibly positive impact on the Arla brand.

#### **BoxCor® Corrosion Prevention Box**

Company: Boxon Oy Category: Electronics

In transportation of electronical components, it is vital to keep them corrosion free. By packing them into BoxCor® Corrosion Prevention Box, the inhibitor will be emitted directly from the inside layer of the box onto the surface of the components. The inhibitor will create a lasting protective coating against corrosion onto all the corrosion sensitive parts placed inside the box. Properly stored the BoxCor® Corrosion Prevention lasts up to 24 months without using any PE bags and thus takes away concern of further condensation.

Often it is necessary to use inserts to protect the electronical components in their packs. By using BoxCor® Corrosion Prevention material inserts can be made from same material. This way the whole package can be recycled or reused as packaging.





#### A recyclable pouch made of Paptic® to replace plastic in vegetable packaging

Company: Paptic Ltd

Category: Fresh Fruits and Vegetables

With a recyclable and sustainable pouch made of wood-fibre-based Paptic® material, it is possible to reduce the use of plastic in vegetable packaging. The breathable nature of the material also keeps onions inside fresh for longer. This complete turnaround for onion packaging was invented when Paptic Ltd and Marvaco Ltd joined forces to respond to a call from Puukin Tila, a Finnish onion farm. Paptic®, fiber-based material, and Marvaco Expanded Gamut Printing with Flint Group C2C inks made the new, truly sustainable vegetable packaging possible. In the optimized packaging, all sustainability aspects were considered, including the substrate, design, printing, and inks. Petri Puukki, the farmer, has said: "We wanted to make a difference and pack our locally produced onions in a sustainable way. Paptic® material keeps onions fresh and the packaging looks fresh!"The project was completed in just a few months.

#### Gift packaging for wine bottles and additional products

Company: Stora Enso Packaging Oy

Category: Gift Packaging

Gift packaging which protects the packed products well and steps up with a premium feeling. Replaces old packaging consisting of outer box made of cardboard and inner part made of E-flute corrugated board. New packaging concept enables the implementation of different packaging options:

- one wine bottle with additional products
- two wine bottles, which may be of different sizes.

Interior part of the new gift packaging supports the packed products during logistic chain and ensures excellent product protection. Improved unboxing experience, the packaging makes it feel like a gift and makes you feel good! Sustainable and environmentally-friendly solution, made of renewable and recyclable materials. Mono-material corrugated board solution.







#### Transport and display packaging for cut flowers

Company: Stora Enso Packaging Oy

Category: Transit

Cost-effective, easy to use, visually appealing and sustainable packaging concept for flower packaging, which is based on renewable and recyclable materials and works well throughout the logistics chain. Replaces typically used plastic bucket. Packaging concept is made over 97 % of renewable materials. The packaging concept includes display packaging (inner box) and outer box. The display packaging is waterproof, based on a leak-tight structure and a thin PET film on the inner surface of the corrugated board. The outer box allows stacking packages on top of each other enabling high logistic efficiency.

Packaging concept can be easily designed in a number of different sizes -> optimization according to the requirements of the flower species and the logistics chain. By changing the plastic buckets to this new packaging concept for this spring's tulips season, one Finnish retailer reduced the use of plastic by 27 tons annually, which strongly supports the achievement of their public sustainability commitments.

#### **GERMANY**

#### **Ecosnap**

Company: 3 V GmbH Verpackung Verpacken Versenden

Category: E-Commerce

ECOSNAP is the high-end further development of the proven stretch film packaging. Thanks to the fixation of the packaged goods, stretch packaging impresses with maximum product protection while completely dispensing with padding and filling materials. Significant volume reduction and extreme saving of resources both for production and shipping lead to a significantly improved CO2 balance compared to conventional packaging. ECOSNAP as a pure paper-based stretch packaging puts the crown on the environmental friendliness of stretch packaging. The film used as the stretching element is replaced by a soda crepe paper with a high stretching capacity. ECOSNAP is thus the first 100% plastic-free stretch packaging, consists of 100% renewable raw materials and is 100% recyclable. Perfect theft protection and opening convenience are also ensured without the use of plastic-based additional materials such as adhesives, tear threads or silicone tapes. ECOSNAP makes a significant contribution to environmentally friendly and climate-friendly shipping.



#### gigasept powerTRIO

Company: Edelmann Group

Category: Medical and Pharmaceutical

The overall concept of the application set for disinfection products "gigasept powerTrio" is characterized by intuitive handling as well as the holistic and user-friendly provision of all necessary components in the set. The user is guided very well through the respective application steps via the graphical visualizations on the front of the package. The design directly solves the required securing of the individual components. The documentation booklet is always readily available.In medical device reprocessing, disinfection products must always be used correctly. Patient safety is otherwise at risk. The new packaging increases process reliability, compliance and usability. It guarantees a three-stage treatment process in the correct order, so that components cannot be replaced. In addition, there is an antimicrobial varnish and high cardboard quality.

The packaging-system guarantees easy handling, maximum user and patient safety for medical-device-reprocessing in professional healthcare. There is no comparable system on the market that guarantees easy handling and safe application. The challenges lay in the safe storage of the individual components, and the overall-size of the packaging for a space-saving-solution. User and patient safety is ensured by anchoring the components in the setbox. A special construction guarantees a secure fixation of the cans. The can-holders ensure that cans can only be removed under great force, which excludes the risk of mix-up.

#### Huhtamaki Push Tab® blister lid mit kpNext™ R1 bottom rigid film von Klöckner Pentaplast

Company: Huhtamaki Flexibles Packaging Germany GmbH & Co.KG Category: Packaging Materials and Components

Huhtamaki and Klöckner Pentaplast (kp) have joined their collective packaging expertise forces to develop a, first to market, truly recyclable blister packaging solution with Huhtamaki's Push Tab® blister lid and kp's, kpNext™ R1. When used together, kpNext™ R1 blister film and Push Tab® blister lid, a 100% mono PET solution available with push and peel opening options, create a certified recyclable blister packaging solution within the RIC 1 recycling stream. Both Push Tab® blister lid and kpNext R1 films utilize a unique PET base solution that is readily recyclable with other #1 PET products. A big advantage for brands and converters is running Push Tab® and kpNext™ R1 films with the same output on their production lines. Too often sustainable options require a sacrifice of slower machine speeds and costly new tooling. This sustainable option is a drop in place, plug-and-play solution allowing immediate use with no additional investment.

play Solution autowing infinieduale use will find additional investment.

Push Tab® blister lid and kpNext™ R1 is a recyclable, plug-and-play solution which also offers unmatched optical clarity. Typically, pharmaceutical blister packaging uses an aluminum film for the lidding which precludes a 100% clear package. Now, consumers can clearly see what is being packaged which is a major benefit. Also, kpNext™ R1 and Push Tab® films provide similar barrier protection to that of a non-recyclable, mono-PVC package. Compared to other mono material solutions on the market, our combination guarantees the same machine speed and performance without compromises to standard materials. Additionally, MOSH/MOAH protection for use with recycled paperboard cartons is given.





#### **GREEN MILK LINER**

Company: NITTEL GmbH, Industrial Packaging Liner

Category: Food

With the Milk Inliner, water, cleaning agents and disinfectants can be saved in the catering sector of coffee houses, bakeries or service stations that already use milk in drums. The time savings for the staff who is in charge to clean the drums must also be considered. As a replacement for classical milk cartons, the milk inliner brings further advantages, significant savings on milk packaging and a even a more pleasing appearance at the counter as an add on. The use of one milk inliner only can save the waste of 20 milk cartons. Saving potential: at least partly replacing the 928 billions of hardly recyclable aluminium-

paper-plastic milk carton waste with easy-to-recycle polyethylene-film. Milk is a sensitive product and widely used. Milk is normally sold in commercial 1 liter carton-aluminum-plastic-composite packaging. This packaging is used in all areas like in private households or in commercial use (coffee bars, fast food chains,..). The annual per capita milk consumption worldwide has risen from 95 l to over 116 l in the last 20 years. That means: a lot of packaging waste. Advantages: a) The milk is in a closed container and cannot be contaminated by insects for example. b) The appearance of a milk carton free coffee counter or salesroom looks much more hygienic than one with started, open milk cartons. c) The use of a milk inliner can save the waste of 20 milk cartons. d) There is no need to rinse and disinfect the interior of the milk barrel, thus saving water, detergents and disinfectants and e) The liner is 100% recyclable.





# Certified and award winning transport protection - AirCushions made from 95% air and 5% fully recycled paper

PaperWave® AirCushion is a FSC® (C162510) certified compostable and recyclable solution that safely protects your goods during parcel shipments. The potato starch sealing layer is ultra-thin and home compost certified, therefore it does not negatively influence any aspect of recycling. PaperWave® AirCushion has superior environmental benefits:

- a sustainable solution, that safely protects any packaged goods
- 100% carbon neutral
- home-compostable and curbside recyclable (PAP22)
- made from 100% FSC® (C162510) recycled paper
- smallest footprint
- air filled at the packing station

















#### AirWave PaperWave Bio air cushions

Company: Flöter Verpackungs-Service GmbH Category: E-Commerce

PaperWave Bio are FSC® (C162510) certified air cushion fillers and wrapper made from 100% recycled paper. Since the air cushions are only produced at the packing station, additional energy expenditure and CO2 emissions are already saved during transport. The packaging consists of only 5 percent material and 95 percent air. When disposing of it, the consumer clearly recognises that it is paper (visually, haptically, PAP22). Should anything accidentally end up in the sea, PaperWave decomposes without leaving any residue after less than 90 days. PaperWave is the only certified transport protection in the form of air cushions on the market and is being demanded and used by more and more sustainably-minded eCommerce customers. In addition to the AirWave Bio and AirWave ClimaFilm, FLOETER is also making a further contribution to sustainability in shipping with the PaperWave air cushions. FLOETER offers the PaperWave air cushions as chains and mats for the air cushioning machines AirWave 1 and 2 as well as AirBoy nano3 and 4. Summary - Material savings (0.9 kg air cushion instead of 11kg crumpled paper / m3) - Production in Germany - Energy saving approx. 70% - Reduction of the CO2 footprint compared to crinkle paper 80%. - 95% air, only 5% material content and this is compostable - Made from 100% recycled FSC® (C162510) certified paper - >80% renewable raw materials - 100% recyclable - FSC (C16105) certified - certified by Papiertechnische Zentrum München for alternative disposal in waste paper and thus labelled PAP22 - all components are home compostable certified by TUEV Austria

#### Reduce Reuse Recycle - the first spray pump for the circular economy

Company: Werner & Mertz GmbH, Berry Global

Category: Household

Our ultra-light weight spray and foam pump for detergents is a record holder in sustainability because it adheres to all 3R circularity strategies: Reduce: maximum reduction of weight combined with high performance and functionality.Reuse: tough and durable, provides at least 5.000 pumping actions (equal to 11 refills of the original bottle) Recycle: completely recyclable and, worldwide, the first made in part with post-consumer recyclate (PCR of 29 %)

post-consumer recyclate (PCR of 29 %)
Werner & Mertz and Berry Global have set the goal to implement, consistently and uncompromisingly, all elements of an effective and recyclable spray and foam pump for cleaning products.. Targets were: 1. minimal use of a homogeneous type of polymer (polypropylene) for optimized recyclability 2. maximum use of recyclate while ensuring durability and longevity 3. compact design: pump «engine» technology with pre-compression in the smallest space 4. less complexity with a modular system design, options for spraying and/or foaming In result of that we created a real light weight spray pump (%18 less in weight compared to German market standard), made from PP almost solely (%97,6), high share of recycled PP (%29), made from polyolefins only.









#### **PAPACKS® HEMP CAPS**

Company: PAPACKS

Category: Medical and Pharmaceutical, Packaging Materials and Components

The next level for fibre-based packaging: PAPACKS® Hemp CAPS. Made entirely from hemp monocultures and combined with the PAPACKS® IMG and PAPACKS® Organic Coating as a stand-alone, home-compostable and plastic-free container suitable for solid and liquid products in direct contact.

Hemp fibres as a sustainable raw material of the future. By using virgin fibres from industrial hemp, we guarantee packaging products with the best CO2 balance. Compared to trees as a source of cellulose, one hectare of hemp has five times the yield of one hectare of forest.

The PAPACKS® IMG - Injection Moulded Granules - is an injection mouldable biomaterial which is completely free of mineral oil and plastic. It is composed of natural fibres and serves as a closure solution for the reclosability of the container. The container, as well as the sealing solution, is then coated with PAPACKS® Organic Coating for a grease, oxygen and water vapour barrier. This is a coating developed for fibre-based packaging that is organic in composition, plastic-free and home-compostable.

#### Kebag

Company: Haepsi GmbH Category: Food

Kebag is a new way for packaging food. The Kebag is process-optimised, ergonomic and sustainable. With the help of the Kebag, the staff at restaurants, bakery or convenience stores or retail trade can carry out all the processes needed for filling and packaging with just one packaging. This means that the user does not need any further packaging solutions or materials. The user can fill the dish and then transform it into a package. The kebag can then be packed temperature-resistant and tightly via the gluing points. The tear-open mechanism allows the customer to open the bag and easily consume his dish. The Kebag can be used for hot and cold dishes and is currently used for kebabs, burgers, in bakeries and bakery shops.

The Kebag is an innovative bag with which helps to optimise processes and make your business more sustainable. We ensure sustainability by using a paper solution instead of aluminium foil or complex cardboard packaging, i.e. by working with a renewable raw material, and by the functionality of the bag. Because the bag is highly functional and the upper part does not contaminate with food, 60% of the bag can be disposed of in paper waste, which means that the paper can be recycled. Unlike other packaging, the paper or cardboard must be completely disposed of in the residual waste, because of the contamination, and therefore cannot be recycled.







#### B+K U-Pack® - recyclable

Company: Bischof + Klein SE & Co. KG

Category: Packaging Materials and Components

B+K has set itself the goal of integrating this product completely into the circular economy. Today, it is up to 98% recyclable according to the CHI standard. This results in a potential recyclate yield of 100% for the packaging. Problematic, troublesome materials such as PET, PP or EVOH have been removed from the laminate. A barrier is nevertheless achieved through special coatings. Only printing inks and adhesives now reduce its recyclability. A further step towards the complete circular economy has been achieved through the use of more than 40 % post-consumer recyclate. This version is used in non-food industries. New developments have additionally enabled the freight volume to be reduced by up to 20%. The entire logistics and transport effort along the supply chain is reduced as a result. The presentation of the German Packaging Award 2021 in the logistics & material flow category confirms this innovative approach.

B+K also offers the option of using ISCC-certified material (chemically recycled or bio-circular) in the B+K U-Pack®. The new development for reducing the freight volume was achieved with a divided carrying handle. This development additionally supports the production processes. Automated packing of the bags with a packing robot and automated removal at the customer are possible. Labor is saved during magazine loading even without packing robots, since the magazine can be filled with a higher number of units.





### **PopArt**

Company: Edelmann Group

Category: Digital Packaging
Packaging for Top cosmetics with digital finishing

Packaging for 5 ampoules and a breaking aid, made of carton board, with the topic PopArt. The packaging is 100% recyclable.

Graphic Design

The glossy relief parts and the logo's metal effects of these cartons are produced by digital finishing. The converter didn't apply hot foil stamping and a separate varnish. We save stamps and varnish plates and we are flexible. Structural Design

These cartons are produced with FSC certified carton board and are fully CO<sup>2</sup> compensated.

The cartons offer large areas for the creative PopArt design and include a hinged lid over the outside, which allows a great presentation of

the products when opened. A secure closure via locking tab with a sound of an acoustic "click" while closing CO2 compensated by supporting fountain systems in East Africa, forest reforestation in Central Uganda and the support of the German





### **NATUREFORMER KFT 90 Speed Machine**

Company: KIEFEL GmbH

Category: Other

A machine that can process all kinds of natural fibers (renewable, CO2-binding, biodegradable, or disposable via the paper cycle) into a wide variety of products. Perspective/Outlook: Further savings of transport and CO2 costs, due to processing of natural fibers in the respective country of the production site. It also prefers fiber residues that occur anyway, for example as residues from food cultivation, e.g., wheat straw. The sustainable packaging solutions produced by NATUREFORMER KFT 90 Speed Machine have low CO2 footprint and can be resistant, shock absorbing, biodegradable. Packaging solutions from primary fibers are designed to be applied in food, beverages, medical, pharma, cosmetics, and smartphone industries. Packaging solutions from secondary fibers (e.g., recovered paper) are designed to be applied in the field of protective packaging, agricultural /horticultural products.

In addition, it is possible to easily adapt and redesign the production process, machine, and tooling technology according to changing customer's requirements.

### **Trapez-Box**

Company: Mondi Eschenbach GmbH

A customer wanted to replace its existing 100% plastic cheese packaging for the purpose of sustainability. The previous, three-piece plastic packaging had a very typical semicircular shape that was easily recognised by customers at the point of sale, having had that shape for years. The challenge, therefore, was to accommodate the same number of cheese pieces in a sustainable packaging solution that had similar external dimensions and was able to hold the same number of cheese pieces. Since a corrugated cardboard box cannot be round, the arrangement of the cheese pieces was the crux of the development work. We designed the trapezoidal box for this purpose.

Major savings can be made with the new solution in warehousing (80% cost saving due to storage of flat blanks), packaging (70% saving), material weight (33% saving) and the eliminated costs for repackaging the previous plastic parts (approx. 6000 standard cartons/10,000m2 per year).





### Mast-Jägermeister #savethenight Edition - Thermochromic screen print on glass bottle

Company: DECO GLAS GmbH, Mast-Jägermeister SE

Category: Labeling and Decoration

Please find more details to the Jägermeister #savethenight concept below.

The Jägermeister bottle "#safethenight edition" was decorated with a screen print. The special feature of this direct print is the use of temperature-sensitive ink. This is the very first time it has been used directly on a glass packaging (in the food and beverage industry). So far temperature-sensitive ink has only been used on paper labels. By using the thermochromic direct print ink, the product packaging receives an additional use. The Jägermeister branding invites the customer to experiencec the brand in a new way and at the same time informs when the drink has reached the perfect drinking temperature (in case of Jägermeister: -18°C). This innovation offers a wide range of design possibilities, as the reaction temperature can be set individually (for example: reacting at approx. 7°C in the fridge).

### **EcoFusion Top with Thin-Wall PCR Max**

Company: Albea Tubes

Category: Health and Personal Care

EcoFusion Top with Thin-Wall & PCR max is the lightest and most circular solution ticking all boxes to move towards greater circularity combining 3Rs: reduction, recycled content, recycling-ready. To really have a big impact in weight reduction, Albea removed one component by fusioning the head&cap leading to the EcoFusion Top design, thus clearly illustrating the efforts in reducing plastic consumption. Reducing weight is our top priority and EcoFusion Top +Thin-Wall 350 $\mu$ m sleeve vs standard cap+head+sleeve leads to a weight reduction of 55%. EcoFusion Top by its own only weights 2.4g vs 12g for the standard head+cap. Moreover, the solution is made from 100% PE making the tube recycling-ready in HDPE streams and integrates 41% recycled plastics (PCR Max with 70% r-HDPE in the sleeve). Apart from the design, this innovation is a breakthrough in production process thanks to the ability to combine it on both extruded & laminate tubes.







# RETHINK LAMINATION FILM

## ROOM TEMPERATURE LAMINATION FILM

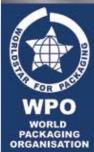
Neither heat nor adhesive necessary

- Self-laminating polyethylene (PE) film
- Adhesive activated by corona treatment only
- Cost- and time-saving alternative to classic thermal lamination and adhesive coating
- Ready to use no curing
- Reduces investment and energy consumption compared to thermal lamination

EXCELLENCE IN FILMS

Available as sealing and overlam Films for lexible packaging and label films

WORLDSTAR WINNER 2023



www.polifilm.com



### **AVEO 100% PCR Aerosol Cans**

Company: LINHARDT GmbH & Co. KG Category: Health and Personal Care

The new aerosol cans for the German drugstore Müller's private label brand AVEO consist of 100% postconsumer-recycled (PCR) aluminium. As the recycling process of aluminium consumes only a fraction of the energy needed for primary production, PCR cans have a significantly lower carbon footprint than comparable standard cans. Unlike other PCR cans on the market, the slugs for the LINHARDT PCR cans are produced without the usual second melting process, because the rolled strips for slug production can be cast directly from the molten aluminium scrap. This way, both the energy-consuming second melting process and the transport from the re-smelter to the slug producer are eliminated leading to the lowest carbon footprint of only 1.1 kg CO2e / kg PCR aluminium slugs (cradle-to-gate). The AVEO cans are decorated with mineral-oil free colours (with possible exception of gold and silver). A reasonable combination that further contributes to the can's overall sustainability.

### **Room-Temperature Laminating Film**

Company: POLIFILM Group

Category: Packaging Materials and Components

The room-temperature-laminating polyolefine (PE or PP) film is intended to open up new processing fields for laminators, online printers, as well as label producers. The film creates permanent and stable composites, used for instance to produce stand-up pouches, without thermal lamination or adhesive connection, thereby simplifying the process considerably. Instead of heat or adhesive the film bonding relies on a chemically-mechanically connection activated by a Corona treatment. From an economic point of view, this reduces the complexity of the processing procedure, the necessary investment of laminating tooling as well as the time-to-market. At the same time sustainable benefits are offered, like less energy consumption and therefore less CO2-emissions, optimized recyclability of the packaging as no non polyolefine glue is added. Moreover, the property profile of the co-extruded polyolefin solution opens up wide ranges of application, from a sealing media for multi-layer laminates to an overlaminate for labels protecting the inks.





### Corona: Most Sustainable Beer Crate - Protecting the Ocean

Company: ANHEUSER-BUSCH INBEV

Category: Beverages

Growing significantly in Germany, Corona embraced the challenge to develop a new consumer-facing beer crate that

- differentiation: more visual impact on a crowded environment, whilst conveying its pared-back "born on the beach" personality
- sustainability: a solution "one step ahead" on sustainability, reflecting Corona's commitment to helping protect nature

- functionality. a crate lighter & easier to use, with at least 10 years of usable life

After months of development, Corona launched its most sustainable beer crate yet – made of over 90% recycled plastic, including maritime industrial waste. The quality of the content ensures its longevity and integrity. Its patented "riptide finish" offers a unique stand out on shelves, as no two crates look alike. The German market was the first to adopt the new crates. Nationwide, Corona helps consumers participate with a simple action: by picking up a crate, they can help save the oceans. Since its launch in April 2022, Corona's new crates have helped minimise the use of virgin material and keep over 800 tons of plastic out of the oceans.

**GREECE** 

### **OLYMPOS**

Company: HELLENIC DAIRIES SA Category: Food

In January 2021, we launched the first milk PET packaging on the Greek market that contains 30% rPET! This packaging is also compressible and has also a tethered closured cap since February 2022, which keeps the product even more safer and recycling even more efficient, due to the fact that the packaging and the cap are recycling always together. Through the squeezability, the recycling volume had reduced over 50% compared to the previous packaging. In Hellenic Dairies we implemented the European guidance almost 2.5 years before the Law obligation regarding the tethered caps!





### Borjomi

Company: A.S. Strategy, Branding & Communication, A. Skaraki & Co Category: Beverages

The task was to design a New Year Limited Edition packaging, based on the essence and key foundation of the Borjomi positioning - Borjomi water as a liquid legend, a legend born in the heart of the Georgian mountains, deeply rooted in tradition and ancient wisdom -, but at the same time to provide it with a celebratory, festive touch.

We managed to design a LE New Year package for Borjomi, based on the brand's essence, without using the usual trivial designing patterns for festive packaging.



### **Breakfast Box**

Company: Breakfast Box

Category: Packaging Materials and Components

Breakfast Box" is a foldable, food & beverage carry box which is characterized by its ergonomic design. The innovation of "Breakfast Box" is the way that the package transforms and creates four thermally independent places. On the interior, there are two separate levels that are designed to include hot and cold food content at the same time in one packaging box. This unique feature prevents temperature and odours from being mixed between them. Our package offers the same advantage for the beverages too, as there are two different and safe-carrying cup holders with a significant distance between them to prevent temperature affection. All of these unique features give our package the ability to transport combined food and beverages in different temperatures without any affection between them. It is a package-solution that allows the users to take the maximum of the content's quality and carry it easily



### **HUNGARY**



### Innovative ebike e-commerce packaging

Company: DS Smith Packaging Hungary KFT

Category: E-Commerce

Innovative ebike e-commerce packaging

The returnable e-com packaging solution developed for the Cowboy e-bike fits perfectly into the complex e-commerce supply chain, while providing a special unpacking experience and being ready for use in just one move. To ensure customer experience, the box is easy-to-open with a tear-tape along the perforation, supplemented by clear instructions and pictograms. The packaging puts the product in focus by placing the bike in an upright position, making it easy to roll out. Also, it can be conveniently rolled back if it is needed for return. The box was made from 100% sustainable corrugated packaging and contains an additional accessory box on the opening side of the packaging, which can be quickly identified and easily accessible. The robust design performs well in the e-commerce supply chain, where it passes through up to 25 touchpoints. Therefore, it has been designed to be particularly strong around the

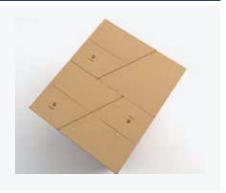
### **Trapezoid transport box**

Company: DS Smith Packaging Hungary KFT

Category: Transit

Trapezoid transport box

This thoughtful transport box is created for a specially shaped industrial lamp, which ingeniously answers the challenges of logistics costs by optimizing truck loading and eliminating empty space. The result: The size of the pallet used for transport has been reduced, 33% more product can be placed on the pallet with an extra layer articles, and 57% more product can be transported on one truck at a time. Cost rationalisation: A big advantage of the solution is that it can be produced with existing conventional in-line machines, without any additional expense. Sustainablity: The 100% paper-based packaging solution perfectly meets supply chain requirements and minimises environmental impact by using sustainable, recyclable raw materials and reducing the amount of material used.



### Automotive glass roof transport packaging

Company: Mosonpack Kft. and Dunapack Kft.

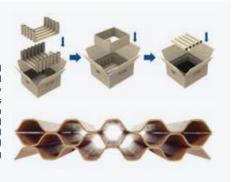
Category: Transit

We were requested to modernize the glass roof window packaging for our automotive partner BOS. Previously, the product was transported on road within Europe and a mixture of wood and technical foam was used as packaging. The customer wishes to use several product sizes/solutions in the future. For this, it was always necessary to use new transport packaging units from this high-production-cost packaging device. The goal of our project was to replace wood- and plastic-based packaging to exclusively corrugated paper-based packaging. Additional customer request was for the design of packaging that would allow individual delivery. This new packaging achieved positive results along the entire supply chain in both real-world and laboratory conditions. The unique insert system met the requirements for each element of the multi-part product line during the packaging tests. In terms of flexibility, it rivals the properties of a technical foam. The specific cost of the packaging thus resulted in a 40% saving for the manufacturer. Uniform packaging results in a more efficient waste management process. It provides the customer with quantitative flexibility in deliveries and enables more favorable storage options. Our new packaging solution completely fits to the principles of the global program of packaging design for recycling published in the WPO's guideline.

### **FiberFlute**

Company: Nefab Packaging Hungary Kft.
Category: Packaging Materials and Components

Our customers who are leading providers and manufacturers in the Electorincs and the Advanced Technology segments are open for a greener approach and we, at Nefab can fulfill their request and help them to step on a greener path with our product, Fiberflute. Our global key accounts (Our global key accounts have honored us with their trust and chose Fiberflute over PE foam to protect their products in a proper and sustainable way.) have honored us with their trust and chose Fiberflute over PE foam to protect their products in a proper and sustainable way. PE foam inserts can be successfully replaced with Fiberflute which is 100 % fiber-based and can be recycled with paper waste. The source material of it is FSC certified and the product itself is available globally. It absorbs more shocks with less material compared to polyethylene. FiberFlute is a sustainable packaging solution that provides outstanding cushioning performance for a wide range of products.







### Continental packaging

Company: STI Petőfi Nyomda Kft.

Category: Other

For its potent combination of shopper appeal, sustainability and practicality.

In keeping with Continental's reputation as a mountain bike tyre supplier, the packaging needed to be high quality, strong and durable while delivering on visual impact.

Inspired by the product shape and the hex device used in Continental's branding, a distinctive hexagonal-shaped pack was created using triple-layer cardboard. Sporting a natural-looking kraft finish with contrasting bold black graphics, it can accommodate any tyre from the range and presents the product equally well on shelves or eurohooks, generating excellent standout in store.

As the ideal tread pattern and tyre softness varies by terrain and type of riding, it was vital that shoppers could clearly

see and even feel the tyres without opening or damaging the packaging.

The large cut-out window achieves exactly that, encouraging shoppers to physically interact with the product and ensure they select the best tyre for their needs.

### **INDIA**

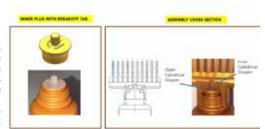
### Push and Break Inner Plug for Indulekha Hair Oil Pack

Company: Hindustan Unilever Ltd Category: Health and Personal Care

The present invention relates to a Hair oil applicator. The invention more particularly relates to a container fitted with a closure comprising an applicator that ensures highly uniform application of the oil on to the hair and especially the scalp while eliminating leakage from the screwed-on closure threads that is often observed with conventional bottle closures. This is non-obvious solution, in the form of a "Breakoff tab" on the closure nozzle (Inner Plug) along with specific configuration of the inner side of the threaded cap.

The applicator includes counter threads, an elongated horizontally placed distributor tube, an "inner cylindrical stopper, and an outer cylindrical stopper" this creates a channel for the flowback of the residual oil from the nozzles into the container to avoid in use leakage.

Also, this invention improved consumer convivence with hygienic product usage experience.





### Recyclable laminate manufactured with green energy

Company: ITC LIMITED, FRESH AND HONEST CAFE LIMITED

Category: Beverages

In the Indian context, the problem of discarded plastic waste is large due to high populous country which has a large consumption base. To tackle the plastic challenge, India had introduced Plastic Waste Management Act, 2016 with extended producer responsibility and more specifically mandated that the Multi-layered Flexible packaging introduced in market should be recyclable or energy recoverable or any alternate use. Coffee packaging demands very high level of protection of moisture vapor and oxygen. Thus, demands to use aluminium foil as barrier layer traditionally. All metals provide almost no entry to any kind of moisture & oxygen but difficult to recycle. To replace the multi material coffee packaging we had developed an ultra-high barrier poly olefinic recyclable packaging solution with high heat resistant BOPP/ ultra-high barrier metallized BOPP/ Ultra low sealable PE. Betting on innovation in the field of packaging and creating new environmentally-responsible designs is indicative of a step towards sustainability and

support for global ecology. Top layer of the laminate is coated with a specially developed matt varnish which provides the texture of matt finish and the high heat resistivity developed at the time of sealing the pack. The three-ply pack is developed specially to withstand the puncture made by sharp coffee beans at the same time provides ultrahigh barrier to the product which is required to retain the aroma which is the key element in coffee. tends to release gas and the entrapped gas in the pack makes it to bulge. Hence a gas valve is heat sealed with the laminate at very high temperature. The laminate is well designed to withstand the extreme temperature sealing.

### Paper based soap wrappers

Company: Huhtamaki India Ltd

Category: Health and Personal Care

Going plastic-free with paper-based soap wrappers

These soap wrappers were launched with an objective to eliminate usage of conventional PET based wrapper and go plastic free with paper-based soap wrappers.

Expanding our portfolio of recyclable soap wraps, we are ready with a paper-based soap wrapper aimed at boosting recyclability and waste reduction. It offers our brand partners the choice of switching from conventional & non-recyclable Pet/Paper/Hotmelt to a PET-free recyclable monolayer Paper/Hotmelt structure

This solution is compatible with existing machine lines and offers easy recovery of paper for repulping during recycling, when compared with laminated soap wrappers (PET-based) where paper is sandwiched in the middle. Our offering is designed with FSC certified paper and has a repulpability index of 80% validated by the Technische Universität Darmstadt.

Key Features: • Eliminates PET top with paper • Suitable for conventional high-speed lines • Resource optimisation, 2 layers to monolayer • Plastic free • Possess recyclability certificate from Germany • Runs on existing lines • Offers repulpability index of 80%







### **Ultratech Crackfiller**

Company: Bizongo Desworks

Category: Household

(a)Designing Ultratech's first B2C product around their existing brand colours to leverage the equity Ultratech has built. (b)Identifying the nozzle size for optimum flow. (c)Incorporating a scrapper in the packaging. (d)Making the packaging ergonomic. (e)Designing a chain of blister packs with perforations for a heavy product.

Solutions:

(a) A clean identity that is scalable across various sizes and showcases the proposition.
(b) Realistic photography, graphical vectors & instructive iconography help communicate the purpose & usage of the product, even at a smaller

(c)Showing the image of the product on the secondary carton showcased the differentiated product and allowed consumers to see the unique (C) strowing the image of the process of the proces

(f)Scraper can be used in broader and narrower areas, including corners.

(g)2:1 perforation was used to make

### **Recyclable Tubes for Toothpastes**

Company: Colgate-Palmolive (India)

Category: Packaging Materials and Components

Colgate's recyclable toothpaste tube is primarily made of HDPE (High Density Polyethylene) #2 plastic, These tubes are designed to be recyclable. HDPE plastic is one of the most recycled plastics and can be turned into all kinds of new products, including construction materials and new packaging. These tubes are validated by the Association of Plastic Recyclers in USA for use in HDPE bottles, Switching to recyclable tubes has the potential to keep billions of plastic tubes out of landfills.











### Consumer Packaging 1 & 5 ltr Dr Fixit Pack

Company: Pidilite Industries Ltd Category: Other

The Pack designed to Connote strength through its stackable design. Ease of pouring of the product from the shape with better compressive strength. The pack made with 3

material.

Transprt worthiness Feature- The packs are designed from transport worthiness point of view i.e without transit damage during long distance travelling & also to achieve leak proof ness. Aesthetic Feature- The aesthetics of the containers is achieved by providing sufficient label space for displaying the branding in front & back panel. Ease of Operation- From operational point of the off centre orifice provides ease of operation in synchronized processes such as filling, plugging, capping & labelling with desired speed.

layer extrusion blow moulding machine so as to facilitate use of post consumer recycled

### **BLACK DOG - BLACK AND GOLD RESERVE CARTONS**

Company: ITC LIMITED, DIAGEO INDIA

Category: Beverages

This brand is launched in two variants Triple Gold Reserve and Black Reserve. This iconic brand has taken leap into more contemporary and premium space, thus reinforcing the brand's success, credibility over years. The revamping has been done by usage of a variety of printing technologies (combination of offset & gravure processes) and various value addition operations like dripoff-gloss texture, multi-colored hot foil stampings, intricate embossing of key elements to represent the brand concept that nature relies on harmonious interaction of its elements. This pack goes through a unique manufacturing process - pasting of two folded flaps to prevent the visibility of manufacturing joint and to give the pack a flawless continuity of all panels. This new packaging is aimed at modernizing the pack and providing consumer an elevated experience and making it a choice of drink for the next generation of enthusiasts

In Triple Gold Reserve, the packaging is developed using virgin board and is printed with lustrous metallic silver ink using gravure technology inorder to give a gleaming base effect. Brand Colors are overprinted through UV offset printing technology. In Black reserve variant, as its name implies is given a rich black background with a blend of mild colors printed using offset technology. Gloss and drip-off effect has been used intelligently in strategic places to give the pack a premium finish and to enhance the branding. Multi colored Foils (copper & blue) are stamped to reproduce intricate text and Embossing finish adds further enhancement to the Brand. Altogether this package with significant shelf visibility of the iconic Black Dog Roundel has been sculpted in such a manner that each element in the pack have its significance, without comprising the visual appeal of one brand element to another.





### Transport Package for 45 Kgs Stadium Light

Company: Bajaj Electricals Category: Electronics

Packaging as a game changer

Conventionally these products are safeguarded with EPS/EPE cushions in 7-ply cartons or packed inside a wooden box with cushions. Tentatively dimensions range from 700mm-1meter+. Product weighing from 45 kgs to 70 kgs with challenges in handling/storage/stacking.

Non-conventional approach to packaging was achieved with a fully functional 5-ply corrugated box & grid/partition. Both box & partition is made with recyclable paper of 20 BF. A-A-A flute partition imparts high load-bearing capacity to 270kg+ dynamic load with no carton/product/stack damage. Stacking increased to 6 high improving storage space & longer periods of the stack

Structural strength using paper was successfully implemented with minimal product contact, movement lock sustaining 10 drops & tipping test.

The efficiently designed package reduced cushioning material consumption to nil. Optimized dimension, PM cost savings by 5% with improvement in package volume, storage, and transportation space with zero waste.

### Renocrit Injection – A Promise To Sustainability Goals

Company: Zydus Lifesciences Limited Category: Medical and Pharmaceutical

Renocrit 2000 IU/0.5Ml Injection is a high value and important product used in treatment of cancer. Product needs storage and transportation condition of 2 to 8 degree centigrade (cold chain). Product is supplied in glass PFS (Pre Filled Syringe) and needs protection against breakage to avoid huge loss on account of glass breakage. Our focus towards ecofriendly and sustainable packaging, made us to realize that packaging of this existing product can be changed to reduce packaging waste, increase recyclability, reduce energy consumption and to optimize transportation/storage cost and space. We changed tray holding glass PFS from two-piece (PVC Lid + HIPS Base) to single piece (PVC Base tray) tray with reduced weight and size. Size is reduced by 40 % and total weight is reduced by 78%. Similar savings in secondary and tertiary is also achieved. Reduction in storage and transportation cost and energy consumption is achieved up to 50%.







### **OAKEN GLOW WHISKY**

Company: ITC LIMITED, PERNOD RICARD INDIA

Category: Beverages

Oaken Glow Whisky carton package is inspired by the elements of nature and creatively curated to give the consumer a truly world-class elegant experience. The uniqueness of this package is the reproduction of finest print quality and intricate copper foiling on the specially developed virgin board with the uncoated surface of board, this helps in achieving a wooden texture communicating elements of nature. The quintessential graphic elements printed on the uncoated surface of the package resolutely depicts the combination of Bold Smoky, Rich Deep and Sensorial spirited smooth malt flavors of the whisky. The trust seal in red color on the pack is designed with perfection to represent integrity of the brand. The auto-lock bottom profile is easy to form the pack and the neck holder sleeve enable easy fitment and holding of the bottle inside the pack.

### Primary packaging suitable for MATS Process (Thermoformed Rigid tray + Flexible lidding laminate)

Company: Tata Consumer Products Ltd

Category: Food

The thirst for innovation and instinct for recyclability led this packaging format to be used as a primary packaging for Microwave Assisted Thermal Sterilization (MATS) process. MATS is an advanced technology for thermal sterilization in which sterilization is performed by heating the food packet up to 121.1 °C at 2.5-3 bar pressure by means of conduction and microwave heating in order to get the desired F0 value#. MATS find its advantage as compared to retort process in terms of sensorial attributes as it takes very less time for sterilization of food.The primary objective of this development is to introduce a suitable packaging format which can be able to withstand process conditions of MATS process, can be recyclable, can be capable of providing the desired barrier in order to get product shelf life of 12 months, and to be customer friendly.





### Nucoxia Injection – 'Snap Tray' – with in-built ampoule breaking feature.

Company: Zydus Lifesciences Limited Category: Medical and Pharmaceutical

Novel design innovation implemented in Ampoule tray – it's 'Functional Tray' with inbuilt ampoule cutter (Design Application No: 359551-001 at India Patent Office). The tray is developed; to facilitate ampoule breaking as an in-built feature, to avoid injuries happening with conventional glass ampoule breaking methods and to ensure environment friendly collection of medical waste. 3D printed prototype tray was submitted to various hospital nursing staffs to take the feedback on functionality, ease and safe use and injuries. This study repeated in various cities/towns and hospitals to understand diversified views. Finally after 4th attempt the tray was finalized. This new concept provides great convenience and safety over conventional methods of ampoule cutting for injectable products. Also it saves time of injection and helps in emergency as dependency on external ampoule breaking tools is not there. Apart from convenience, need of environment friendly disposal is taken care of in design of tray.

### Ksheer Ratn Ghee - Ceramic Pack

Company: DHARAMPAL SATYAPAL LIMITED Category: Packaging Materials and Components

To promote sustainable environment friendly packaging, we are using ceramic as the packaging material. In Asian civilization, ceramic is used for storing food for centuries.

The distinctive geometrical pattern on the jar surface gives it a premium look. The pattern also signifies the traditional architectural patterns found across India.

The first reason to choose ceramic over another material is that Ceramic keeps the product hotter for a longer period of time.

Ceramic is the most neutral material in terms of flavour. So it eliminates changes of leaching of aroma

Ceramic is the most neutral material in terms of flavour. So it eliminates changes of leaching of aroma or any oils.

Ceramic is a material that is mechanically strong and can be given the desired shape easily.

Ceramic last for years and therefore can be used multiple times even after the product is finished.





### Paper based compostable tea envelope

Company: 'ITC LIMITED', 'J V GOKAL PRIVATE LIMITED' Category: Beverages

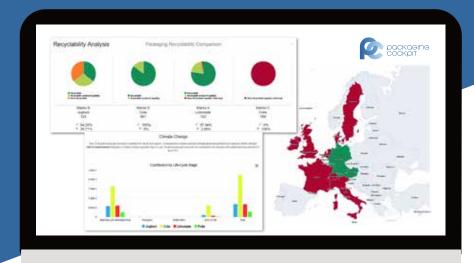
India's packaged tea market is worth of 170 billion INR/ annum which utilizes plastic packaging material of about 15,000 MT/ annum. The solution aims to replace the plastic packaging using novel compostable solution. To overcome the problem faced on single use packaging products, there demands an attention to innovate and find a new solution which would make the packaging material an environment friendly. By addressing the challenge of plastic waste management, consumer expectation and no compromise in quality, ITC had developed a completely compostable tea envelope bag. The conventional tea packs are made of multilayer plastics or paper coated with plastics making it difficult to recycle. To overcome the problem, we at ITC had developed a novel solution which is 100% biodegradable and compostable sealant coating which helps in developing a compostable package.



# THE FUTURE OF PACKAGING IS DIGITAL

Looking for a way to manage your packaging and make it more sustainable? Look no further.

The **PACKAGING COCKPIT** helps you to make the right decisions for a recyclable and sustainable packaging portfolio, easily managed in a comprehensive interface. Calculate country-specific sustainability factors and share your data along the entire supply chain.







### **Self Seal Box**

Company: Craft Packaging', 'Craft Display[

Category: E-Commerce

Self Seal Box is the future of e-commerce packaging, It's made of 3ply corrugated cardboard which can be easily recycled. The engineering of pack is a state of the art design which allows one to pack or seal the product without the help of sealing materials viz, glue, tapes, shrink film etc. Once the product is packed in the self seal box there is no need for gluing or taping to seal it. Now coming to your question why is our pack a winner, Just like we don't require any glue or tape to seal it, similarly we don't require any knife or scissor to open it, with the help of perforation marks and well structured engineering the box ends can be teared out to open. And it doesn't end here, one can easily close it after tearing, but it wont be sealed after tearing the ends.



### Roll-On Poll-On

### Vicks Roll-On Inhaler

Company: Procter & Gamble Category: Health and Personal Care

1. Unique Concept: In the market there are separate inhaler for blocked nose and roll-on for headache relief packs available. This pack combined both in to 1 for user convenience. 2. On the Go Convenience: Great thing nasal and headache relief can be found – and carried – anywhere, anytime. Economical, compact and effective, Vicks Roll-On Inhaler has been giving fast and temporary "mobile" relief from nasal clogging due to colds, hay fever or upper respiratory allergy. This little gem of a tube soothes clogged schnozzles and easily fits even in kiddie pockets. 3. HTL Decoration: Heat transfer labelling for premium and neat look. Also, ink is resistance to product. 4. No applicator: A unique roll-on design without any ball applicator. Just reapplication of Physics. Product comes out from container due to capillary action 5.0 leakage: Complex assembly with 0 leakage. 6.Key chain to carry it The two most bothersome symptoms are blocked nose and headache (Unmet Need). P&G was into inhaler category only for blocked nose relief. New VICKS Roll on-Inhaler - Two products. One cool design. It comes with a Roll-on – an ointment to help relieve disturbing headache due to colds. And on the other side is Inhaler, to help relieve blocked nose problems. Comes too with a key chain so consumer can carry it, whenever he/she needs immediate relief! This is a joint development between P&G and Makson Healthcare.

### TREAT ICE CREAM TUB AND LID

Company: Kellogg India Pvt Ltd

Category: Food

Treat Ice-Cream Tub and Lid is one of the classic sustainable developments, specially meant for deep freezing applications. These family-pack ice-creams which were initially packed in rigid plastic containers, have been completed reinvented and revitalized into an eco-friendly and sustainable paperboard-based pack. Treat Ice-Cream Tub & Lid research and development was carried out keeping in mind the 3R Green Concept (Reduce, Reuse and Recycle), the first R "Reduce" has been incorporated in this package design. Treat Ice-Cream Tub and Lid are made of virgin specialty paperboard coated with a thin layer of Polyethylene (PE) on both sides. These tub and lid are precisely manufactured through highly advanced machineries, which enables the properties of leak proof and spill proof, thus making it more suitable for filling the creams in liquid state directly into the tubs and then freezing the creamy liquids for conversion into ice creams.





### Kellogg Bag in Box to Doy pack Transition

Company: Kellogg India Pvt Ltd

Category: Food

Kellogg India is the leading Breakfast Cereal Brand,has successfully switched to first-of-its-kind packaging method from Bag in Box to a Doy pack thru new customized HFFS technology in 2020-2021. The advantages of this pack type are immense from environment sustainability and from consumer convenience perspective. This pack has reduced source utilization with a single packaging system and the compact design that enables easy storage and transportation. The Zip Lock retains freshness of the product while the pack design allows better perception of the quality while purchasing. With an improved laminate barrier, the product has a shelf life of 9 months and new pack saves over 30% of inventory and storage space across value chain. Compared to the BIB type, the Doy pack weighs over 80% lesser and saves material costs by 50-60% & reducing 1.5% of packaging waste as opposed to 6-7% with conventional packs. Hence game changer in category.

### **ISRAEL**

### **MAYU Swirl**

Company: MEYTAL-PACK Category: Household

A revolutionary product in the field of drinking water deserves innovative packaging. MAYU Swirl device, the green way to upgrade drinking water, is packaged in a total green package containing only two raw materials, recycled-paper and tin. 88% of the weight of the raw material of the packaging is recycled. The use of recycled materials emphasizes the beauty of the product. Mixing the water is the inspiration for the round cylinder box. A delicate device made of glass and porcelain containing sensitive electronics received internal protective cushions made of recycled cellulose, the design of these absorbers was inspired by the company logo debossed on the cork of the bottle. In addition to the luxurious look, delicate graphics maintain a connection to the earth and nature.

In order to be able to distribute this most fragile product, we had to find sustainable solutions as well as packing methods that would meet the unboxing expectations of customers of premium products





### Tal Skopal Idan Koris Snir Yagil Irena Gorban Copy Center

Company: Strauss Ice cream by Unilever Israel

Category: Food

The products packed in this pack are ice cream mono bites coated with thin chocolate compound.

This product's pack existed in its past format for more than 35 years. The team and specially marketing, saw a huge risk on sales volume, if we change such iconic pack.

The new design is from carton. It delivers sustainable solution (the pervious pack was from PS), innovation and premium appearance to the product. While all along, keeping the same dimensions, same serving size and most important, keeping the products inside frozen just the same as the pervious pack did.

The new design carton pack removed 40 Tons of non-recycled PS (plastic) waste per year. The carton pack delivers more artwork space on the pack. The new design is built from 2 folded walls and cushions pads between the layers, that keep the mono bites away from the pack outer surface. That's how the products inside can remain frozen during supply chain and consumer usage.





### Go Cube

Company: NotFromHere Ltd. Category: Other

This package's unique opening solution follows the movement while using the product. The shape of the package is the shape of the cube while opening it, with a rotary motion. The advantage of this package is it's a fun experience almost like playing. You can see the users smiling while opening the package with a sense of surprise on their faces. Using the gamification experience for the actual package got here a lot of attention from users, millions of views for unboxing movies on youtube, and 5 stars reviews on the packaging on Amazon. The smart version of the Rubic Cube – A smart product with smart packaging. The design concept was to create an experience of packaging that follows the experience of using the product. The way to play the cube, turning it around was the inspiration for the experience of opening of the packaging.

This is a package design for a smart toys brand that has, innovation, technology and playfulness at its core Exist in a very competitive environment of gaming & Entertainment, Smart Technology gadgets, it is very hard to receive attention from users.

### **MOTTY DALMEDIGOS**

Company: DYKAM

Category: Fresh Fruits and Vegetables

A specially shaped linerless label

Unlike most linerless labels, the Marina label was adapted to meet the customer's requirements for a special shaped label. The standard rectangular shape was not suitable for Marina's marketing needs. In addition, the Marina requested to print on the back of the label additional marketing information, to enrich the consumers' experience. The label is applied by a labeling machine on 3 sides of the product - on the bottom, side and top. By switching to linerless labels, the Marina could stand out marketing wise, while retaining all the well-known advantages of linerless technology of being more productive and environmentally friendly.

More over, working with the linerless resulted in a reduction in the price of the label and in higher operational efficiency. 
Dykam Linerless labels Advantages: • Carbon footprint significantly reduced – zero non-recyclable non-biodegradable liner paper is wasted. • A label price is more attractive to the customer due to the elimination of the liner. • Increased efficiency – about 50% more labels per roll, longer runs and fewer roll changes. • Better logistics and transportation. • Reduces packaging price. • Can be applied either manually or as part of an automatic solution. • Can be supplied made of paper, synthetic or biodegradable material. • Label can be printed on both sides. • Adhesive can be adjusted as per customer specification. • Improves TCO – Total Costs of Ownership reduced.



### **ITALY**



### Fanton s.p.a. Power-strip Relife

Company: Lucaprint s.p.a. Category: Electronics

"it's just one simple piece of carton with a tamper-proof locking mechanism. A wonderful piece of cartonboard engineering that fixes the product inside. A smart construction, which holds, locks and displays the product. Excellent on-shelf presentation and clear communication to the consumer."

Relife is the new eco-sustainable line of "Made in Italy" multi-sockets, made with certified recycled plastic material. The packaging highlights this concept by replacing classic plastic wrapping and using recycled cartonboard. It is equipped with a Tamper Evident system and the case is optimised for the industrial process. It does not have a lining or coating, which fully highlights the sustainability credentials of the contents: A completely new mono-material case concept. The packaging protects the product fully without compromising its visibility. The communicative surface is also haptically very pleasant. It feels natural and supports the brand communication perfectly. By closing the crush bottom, the two compartments are automatically created, reducing product insertion time.

### Mono PE Bag

Company: Di Mauro Flexible Packaging

Category: Pet

The recyclability of the flexible film is evaluated as being of particular importance for the sector of use: animal feed, a sector in great expansion, with considerable quantities of materials and products involved. The multiple problems of pet food packaging give further value to the technical effort.

This is the journey made with our customer Veronesi who was in search of a recyclable solution for his feeds for aquaculture. The line of products certified OMG free, created respecting the environmental impact, also needed a change in its packaging. The transition from a complex OPA/PE structure to a PE mono-film created a packaging in line with the principles of circular economy and sustainability. To ensure recyclability, the new packaging has been designed according to the most current guidelines (CEFLEX, RECYCLASS, etc.) by limiting as much as possible the extraneous components to the base polymer whose collection, selection and recycling flow is widely developed in Italy and in Europe. Recognized as 95% recyclable, the packaging has resulted in further added value for the range of Veronesi feeds. "







The Italian Packaging Institute provides ongoing and constant advising services to all its members. It draws on the knowledge and experience of an esteemed group of experts and consultants, who promptly attend any issues related to the packaging supply chain.

**SUPPLY CHAIN** 

### PACKAGING

The **Best Packaging** is a contest designed by the Italian Institute of Packaging and has been held every year since 1957.

The main purpose of the competition is to promote and disclose packaging solutions, packaging systems and machinery which are innovative or improved for the Italian market.

The current structure of the contest includes a main and 2 special sections in rotation: **quality design, innovation** and **sustainability.** 

The technical-legislative database is closely connected to current events and it also collects a variety of documentation such as legislative texts, opinions, position papers, rules in technical investigation, material alerts and more, available at any time, through access to the area reserved for members only.

### THE COMMISSIONS

Experts Technical tables exchanging ideas on cross-cutting and topical issues, aiming at drawing up operational guidelines for the industry. All experts are from associated companies.

### **HELP DESK**

A technical and regulatory support, whose strength is the direct contact with experts: "real-time" answers by phone and by email.

### **DATA BANKS**

The Italian Packaging Institute has legal and economic databases that can be consulted and downloaded free of charge by members, independently, from the Wikipackaging.it site.

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### **ETICPACK**

Company: Unifarco Spa

Category: Packaging Materials and Components

Ecoallene®, is an innovative material deriving from the recycling of polylaminates (plastic-aluminium), derived from the recycling process of food and drink containers known as "tetrapak", of which over 1.4 billion are collected just in Italy. With Ecoallene®, UNIFARCO has realized a cosmetic jar and cap realized with injection moulding technology.

The Ecoallene®, is made with a patented production process. The innovation lies in the treatment of waste: the components are not separated but remain aggregated. Moreover, at the end of life of ETICPACK the packaging can be collected and recycled for obtain other ECOALLENE with a total circular approach.







### Eco Fit Lid: the new generation paperboard lid

Company: Seda International Packaging Group

Category: Beverages

Eco Fit Lid is the innovative paperboard lid made from 100% PEFC™ certified fibers designed to replace current plastic lids for hot & cold beverage cups in the food service market.

The motivation the jury provided for winning a Best packaging Award 2022: "This innovation impacts on a new concept of consumption on the go, a rapidly growing trend. This lid is flexible and versatile and highly customizable."

One of the most important structural design elements is the tight and secure fit with the paperboard cup ensuring full safety in all consumption occasions, including on the go and home delivery. The lid can be customized with multiple drinking hole shapes and cross-cuts are available on customers demand. Eco Fit Lid innovative design and sustainable raw materials have been widely acclaimed, including winning the 2020 European Carton Excellence Awards in the Save the Planet category and the 2022 Best Packaging Award.

### **JAPAN**

Very impressed! A "one-piece box" is a packaging material that integrates an outer box and cushioning material.

Company: DENSO WAVE INCORPORATED. DENSO LOGITEM CORPORATION. CHUOH PACK INDUSTRY CO.,LTD.

Category: Electronics, Transit

We have developed an environmentally friendly, recyclable, all-corrugated, highly functional packing box as packaging material for precision equipment. One Piece Box is a packaging box formed from a single corrugated cardboard sheet and integrating an outer packaging box and cushioning material. It can be easily assembled, and the flap has a structure that can store accessories. It can be delivered folded in a flat plate form, reducing transportation and storage space for components. Furthermore, the integration of the outer box and cushioning material reduces the man-hours required to manage the components. This is a highly functional packing box that combines excellent cushioning performance and assembly workability. This box is suitable for small and medium-sized products and precision equipment, and can be widely used as a corrugated cardboard packaging box that is people and environmentally friendly.





### **GREEN BASE Dry Vegetable Series**

Company: ELLEROSE co., ltd.

Category: Packaging Materials and Components

We have adopted kraft-clear packaging for dried vegetables produced domestically that are delicious while contributing to reducing food loss.

By using highly transparent paper for more than 50%, it allows to be labelled as paper packaging and the inside product is visible along with oxygen barrier coating. Flexographic printing, which uses fewer organic solvents, has been adopted in consideration of the environment.

### Coca-Cola Label-Free PET Bottle

Company: Coca-Cola Tokyo Research & Development Company, Limited Category: Beverages, Labeling and decoration

Our iconic Coca-Cola contour bottle was launched in 1915 with the concept of being recognized even if it was shattered or touched in the dark. The new Coca-Cola contour has evolved from this tradition by adding an element of "sustainability" with label-free feature. Also, the PET bottle is made from 100% recycled PET and the weight has been reduced by 2g. The product is drinkable size of 350ml, mainly at e-commerce channel.

By removing a label, the PET bottle doesn't require a flat area to roll a label, which gives us more bottle design flexibility. It reproduces the unique curved shape of the traditional contour bottle, and the Coca-Cola spencer logo is dynamically placed for bolder band appeal. The logo visibility is enhanced by utilizing mold technology. We achieved to develop the next-generation PET bottle having brand equity and sustainability.





### "Flat fold packaging" A solution to the De-plasticization Problem!

Company: Nissan Motor Co., Ltd. INOAC CORPORATION ITOCHU Pulp & Paper Corporation CHUOH PACK INDUSTRY CO.,LTD.

Category: Transit

This is a packaging material for coated automotive exterior parts that require protection of the design surface. Conventional products use a fixing material made of chemical products attached to the cardboard and a plastic bag for protection of the coated surface. Vibration during transportation caused scratches on the design surface, resulting in defective products, so we developed an all-corrugated cardboard packaging material that protects the product and eliminates plastic. By inserting and securing cardboard on the backside of the product, it can be packed flat without touching the design surface. The flattened design increases capacity and improves transportation efficiency. Furthermore, it is a general-purpose specification that allows packaging of two part numbers, one for conventional products and the other for new products. As a result of the improvement, packing time was reduced by 56% and transportation efficiency improved by 11%.



# Continuents (Continuents)

### **Eco-Friendly Blister Pack with Biomass-Based Plastics for Pharmaceuticals**

Company: Astellas Pharma Inc.

Category: Medical and Pharmaceutical

Nowadays, biomass-based plastics made from plant-derived raw materials have been attracting a great deal of attention as an environmentally-friendly material. They can contribute to the reduction of carbon dioxide, which is one of the major greenhouse gases. In October 2021, we Astellas Pharma Inc. succeeded in application of biomass-based plastic films (hereinafter, referred to as "biomass film") to blisters as the primary packaging for pharmaceutical products. As far as we are aware, that is the world's first use of biomass film for blister packages for pharmaceutical products. The blister packages for pharmaceutical products play a crucial role in delivering medications to patients appropriately, which means that careful and substantial examinations were required prior to applying biomass film to the commercial products. Through one difficulty after another, we have eventually realized the commercial production of the blister packages with biomass films (hereinafter, this is called "biomass blisters"), ensuring stable supply.

The biomass blisters make contributions to cutting down on the use of conventional petroleum-derived plastic films such as polypropylene

The biomass blisters make contributions to cutting down on the use of conventional petroleum-derived plastic films such as polypropylene and polyvinyl chloride films and lead to reduction of CO2 emissions by around 40% compared with the blisters of polypropylene. In addition, biomass blisters can offer features required for the blisters of pharmaceuticals, which not only give protection from physical damage but also adequate usability for both patients and healthcare providers. Moreover, biomass blisters can be manufactured by utilizing existing equipment without too much investment in time and money. That is, the packaging technology for biomass blisters is versatile and can be applied in many other pharmaceutical products, which can achieve environmental protection and delivery of good quality medications at the same time.

### Corrugated cardboard cushioning material with a freely adjustable angle

Company: TOTO LTD.

Category: Transit

When a load cannot be directly supported by the porcelain because of localized protrusions or other shapes in the porcelain, layered cushioning material can be placed along the shape of the porcelain to achieve a load bearing structure that utilizes the properties of the rigid porcelain.

By aligning the overlapping notches of the cushioning material and inserting a stopper, the angle can be maintained while preventing the material from falling or slipping.

Changing the position of the notches enables the angle to be freely adjusted.

The amount of corrugated cardboard used has also been reduced by approximately 30% compared to the conventional structure.

Since this cushioning material consists only of corrugated cardboard, consideration is given to wasteability and the Global Environment.

## Corrugated cardboard cushioning material with a freely adjustable angle



### SPOPS, a paper container for cosmetics and toiletries to realize both user friendly and eco friendly

Company: Nippon Paper Industries Co., Ltd.

Category: Health and Personal Care

A paper container with a new concept named 'SPOPS' has been developed. It is a package for cosmetics and toiletry products. Usually, plastic bottles are used for these products. In Japan, refill pouches, which are flexible package made of plastic, are also widely used. These packages use a lot of plastic and the refill pouches are inconvenient to use. SPOPS is a new style package in which a paper container is set in an outer container with a pump and replaced like a cartridge to replenish the contents.

SPOPS has been commercialized in not only personal care and fabric care products but also a hand sanitizer.

SPOPS realizes both user friendly and eco friendly, and can contribute to the enrichment of people's lives.

Furthermore, it can contribute to bygiene, which has been in high demand due to COVID pandemic.

Furthermore, it can contribute to hygiene, which has been in high demand due to COVID pandemic.

Features of SPOPS are as follows. \* User friendly 1) Reduced work time and effort for replenishing contents 2) Residue amount reduction 3) Tidy storage \* Eco friendly 1) Reduction of single-use plastics 2) Improving packing and transportation efficiency 3) Reduction of garbage volume

### Finger-fitting tab for food can lid

Company: Toyo Seikan Co.,Ltd.

Category: Food

We have developed a new tab for the easy-opening end of food cans that fits the finger and is easy to open. This tab is not only easy for a person to open, but also has a safety feature that reduces the risk of the lid opening against the person's intention. The unique feature of this Finger Fitting Tab is the finger fitting part. Tabs are sometimes machined in the Z-axis direction to provide a gap for finger hooking (Tip-up). Our new tab's shape of the tip-up is different conventional tab. In the conventional tab, the finger fitting portion is curved in an arc in the direction opposite to the rivet when viewed in a plane (convex shape). On the other hand, the finger-fitting tab is curved concave in the direction of the rivet and is shaped to follow the finger.

This Finger Fitting Tab has four advantages. First is improved fingering. The finger-hanging part is concave to fit the fingertip, enabling strong finger-holding with the belly of the finger. And ,the increased contact area reduces pressure on the fingertip, which reduces pain and discomfort. Second is the reduction of the risk of inadvertent opening. The apex of the finger hook is tucked inside the concave shape, reducing the risk of the can's seam band or other parts of the can getting under the tab. This prevents unintentional opening accidents. A final advantage is the guidance of the fingertips. The concave shape of the finger-hanging portion naturally guides the fingertip to the center of the tab. This accessible design prevents the user from placing a finger on the tab from an angle without being aware of it, thereby reducing the risk of unintentional opening





### AJI-NO-MOTO® paper packaging - New packaging from plastic to paper packaging -

Company: AJINOMOTO CO., INC.

Category: Food

It is eco-friendly paper packaging for seasoning crystal like "AJI-NO-MOTO®", which has pinholeresistance and vapor barrier property. Proprietary technology makes the new packaging comparable to the current plastic packaging in terms of durability, moisture resistance, and ease of opening. The adoption of the new package is expected to reduce the current plastic usage by about 34%, or 12 tons, per year. It's also hoped this move by an industry leader will have a ripple effect and prompt other companies to adopt more eco-friendly packaging.

In addition, the package has the "wide top bag" shape, which has "legs" to stand alone at the lower external side of the pillow-shape package bag. The paper packaging is a refillable bag, and it also contributes to the reduction of CO2 emissions by refilling into bottles.





### **Suzuki Motor Corporation**

Company: Suzuki Motor Corporation / Oji Container co.,ltd. Category: Transit

The shipping method of seats for overseas had the following problems.

- ①accommodation efficiency ②high cost due to Iron
- ③Less workability because the seats must slide when fixed and 36 screws must be tightened
- This time, with the adoption of lightweight, design-freedom and easy-to-recycle cardboard boxes ①Development of jump-up prevention structure, increased number of contents from 6 to 8 seats / case
- 2 Cost reduction and recycling 3 Abolition of sliding work and bolting in fixing
- These improvements were made to achieve an annual effect of 200 thousands dollars.

### Flowpack PL MONOSOLUTIONS™ edition (PE monomaterial refill

Company: FUJIMORI KOGYO CO.,LTD. (ZACROS) Category: Packaging Materials and Components

Fujimori Kogyo developed Flowpack PL MONOSOLUTIONS™ edition, all-polyethylene monomaterial liquid flexible pouch, which are conventionally made of multi-materials to optimize recyclability. Fujimori Kogyo was the first manufacturer to successfully mass-produce monomaterial refill pouches with the global brand owner in Japan.

This product has the following features:

- Flowpack PL use 80% less plastic than bottles
   Achievement of monomaterial flexible pouches for liquids, which are known to be difficult to package in pouches
- Quality equivalent to multi-materials pouches in terms of strength, oxygen barrier and water vapor barrier properties, print quality, and ease of refilling
- quality, and ease or remining.

   Design that meets CEFLEX guidelines

   MONOSOLUTIONS™ has spout pouches in the lineup, and they make it possible to contain liquid up to 1300ml.





### House Kari-ya Curry Microwaveable Pouch

Company: House Foods Group Inc., Toyo Seikan Co.,Ltd Category: Food

Microwavable plastic pouch for food, such as a curry.

Pinholes in the packaging material occur during heating were prevented without the addition of heat-resistant film. In addition, our proprietary processing technology has achieved excellent opening performance, reducing the plastic usage and improving performance at the same time.

Punctures in microwavable pouches can occur due to salty or oily contents or microwave models, and we have solved this problem. By switching from boiling to microwave heating, the heating time has been greatly shortened, and CO2 emissions during cooking can be reduced by around 80%

This product can contribute to the further spread of microwavable pouches.

### Shio Hitofuri, one-shake ("hitofuri") salt

Company: The Salt Industry Center of Japan

Category: Food

Because our pack, "Shio Hitofuri", one-shake salt bottle stops overflow and enables to shake out a small amount of salt (approximately 0.3g) with just one shake. Not only it eliminates the bother of weighing out, it also helps people control their daily intake of salt easily. By introducing Overflow Prevention Function (patent pending) to the cap for the very first time in the Japanese salt industry, only a little amount of salt comes out from the small mouth at a shake by anyone anytime. The number, size, and position of the holes of this mouth are well considered so that salt will be sprinkled appropriately and effectively over food. In addition to it, another mouth with a large hole is provided for a large amount use, making this bottle perfectly fit any kinds of cuisine.





### Kirin Namacha "Green Ecology Bottle" with a unique integrated sustainable approach

Company: Kirin Holdings Company, Limited

Category: Beverages

"Kirin Namacha Green Tea", known as Kirin Beverage's environmental flagship brand which won the 2022's Japan Packaging Contest for the new bottle made of 100% recycled PET, further advanced sustainability from the package standpoint. In addition to the use of 100% recycled PET for newly designed bottles, their original rectangular bottle shape enabled an integrated sustainable approach which covers material saving (light-weighted bottles, compact labels, short-heighted corrugated boxes, paperboards for integrated packaging) and the enhancement of transportation efficiency (increased cubic efficiency in track transportation). This approach leads to the decrease of environmental impact and the mitigation of labor shortage, which are significant social interests in countries like Japan.



### Safety System Pre-fillable Syringe ClearJect® WN-SD

Company: TAISEI KAKO CO., LTD. Category: Medical and Pharmaceutical

This is a pre-filled syringe integrating a needle and its safety cover. No usage of adhesive can prevent any influence on drug inside, and thus, it is applicable to bio-pharmaceuticals. No necessity of attachment of disposable needle can reduce the risk of accidental touch to needle significantly. Bumpy surface of the cap improves grip and prevents slip when the cap is removed. These features can protect both practitioners and home-care patients safely.

In addition, automatic retraction and lock of needle into its cover, which are a series of injection processes, can realize avoidance of needle stick injury, prevention of reuse of syringe and safe disposal.

### Plastic filmless, heat sealable and barrier able flexible paper package with water based ink jet printing

Company: KANAOKA holdings CO.,LTD. , MITSUBISHI PAPER MILLS LIMITED)

Category: Food

These are all-paper packages without plastic films for chocolate developed with sustainability as its main concept. The paper material used is barricote® (FSC®-certified paper) launched by Mitsubishi Paper Mills Limited, which is heat-sealable and possesses oxygen and water vapor barrier properties. Digital water-based inkjet printing is also utilized to pursue eco-friendly converting. It is plateless and solvent free. Compared to gravure printing, ink waste can be decreased, and inventory disposal also reduced because small lots production are possible by using digital printing.



### "Asahi Jurokucha" PET 630ml direct marking bottle

Company: ASAHI SOFT DRINKS CO., LTD., Ricoh CO., LTD.

Category: Beverages

Global climate change and the reduction of plastic waste are gaining worldwide attention as social issues to be addressed in order to pass on a bountful planet to future generations. In light of these social conditions, we have developed a new type of "completely sticker-less bottle," the "Asahi Jurokucha" PET 630ml direct marking bottle. The new bottle has been created by using the latest high-definition UV laser marking technology, which we call "Direct Marking Technology", to express the necessary information directly on the PET bottle for our core brand of blended tea "Jurokucha,". This eliminates the need for small plastic stickers, which were previously required, and contributes to further reduction of environmental impact and improvement of recycling efficiency. In the future, we aim to implement single product sales at mass merchandisers and convenience stores, and expand the sales to other brands. Hereby contributing to the realization of a sustainable society.

expand the sales to other brands, thereby contributing to the realization of a sustainable society.

The technological breakthrough is the ability to express fine characters and even complex Japanese Kanji on PET bottles for beverages, which was not possible with conventional CO2 lasers. By fine-tuning the irradiation intensity and frequency, we succeeded in achieving both good visibility and safety without risk of leakage. In terms of marketability, the planned sales volume of 1,200 cases was sold out in the limited sales on Amazon's EC, and the product received a high evaluation with an average review score of 4.8 points. We received many positive reviews from customers who actually purchased the product. "Since I don't have to remove labels or plastic stickers anymore, I can approach recycling with a positive attitude." If all conventional "Jurokucha" products with labels were replaced with direct-marking bottles, plastic use would be reduced by approximately 190 tons per year and CO2 emissions by approximately 1,200 tons.

### **Bath magiclean Airjet**

Company: Kao Corporation Category: Household

Development of new trigger sprayer with continuous spray.

It is improved the useability to design long leverage and hand guide cover.

It has achieved a reduction in the burden of bath-cleaning by combining of new trigger and cleaning agent, because new sprayer can be applied easily on wide area.

Continuous spraying is possible by adjustment of the accumulation piston and discharge time per stroke. Also discharging time of a second per stroke facilitate continuous spray. The longer leverage and the hand guide cover which lead to maximum effect of the principle of leverage reduce the burden during use.







OCT. 2024 TOKYO BIG SIGHT

### Japan Packaging Institute (JPI)

Japan Packaging Institute (JPI) was established in March 1963, and was upgraded to a legal entity in June by the Minister of International Trade and Industry. With the doctrine of "Challenging the future of packaging by means of originality and ingenuity", the juridical foundation, Japan Packaging Institute, has been promoting the rationalization of production and distribution as well as consumption through improvement and elevation of the packaging technique and thereby contributing to the progress of Japan's economy.

· Headquarter: Tokyo

· Branches: Sapporo, Sendai, Nagoya, Osaka, Fukuoka

• Number of Members: 1,200 companies

(Packaging Industry:700, Users:400, Logistics Industry:100)

### **Business Outline**

 Developing packaging specialists at the basic, intermediate and upper levels and in each specialty field by organizing seminars, study sessions and observation visits.

Issuing newsletters, journals and packaging-related publications

 Performing secretariat duties for the ISO in the management of ISO/TC/122 (Packaging) to develop ISO standards

 Exchanging information and working together with packaging-related organizations in and outside of Japan

Conducting surveys and R&D related to packaging, consultation and guidance concerning packaging

Holding biennial packaging exhibitions TOKYO PACK since 1966 :

TOKYO PACK is one of the Asia's major international packaging exhibitions, primarily featuring packaging materials, containers and machinery and covering all the phased from procurement, production, distribution, sales, consumption and disposal to recycling.





### JAPAN PACKAGING CONTEST

The Japan Packaging Contest is held every year with the aim of promoting development and spread of high-quality packages as the nation's greatest and most influential contest in the field. The categories are: Technical Packaging, Appropriate Packaging, Packaging Idea, Packaging Design,

Accessible design, Logistics, Food, Confectionary, Beverage, Cosmetics, Gift, POP, Pharmaceutical and Medical Packaging, Toiletry Packaging, Daily Necessities and General Merchandise Packaging, Transport, Electric Equipment Packaging, Industrial Packaging and Large-sized Equipment Packaging.

All packages winning awards in the JAPAN PACKAGING CONTEST 2024 will be displayed at TOKYO PACK 2024.

### **JAPAN PACKAGING INSTITUTE**

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### **ecoPACK**

Company: ASAHI BREWERIES, LTD., WestRock K.K. Category: Beverages

The importance to society of reducing the impact on environment have been increasing. It is important that the shape allows customers to feel contribution as well as resource conservation is achieved by the weight reduction of six-can pack. In the latest, the conventional approach was changed, giving priority to environment-friendly shape. Prioritizing the reduction of environmental impact, ecoPACK succeeded in significantly reducing weight based on innovative shape changes. The paper area has been reduced by 77% for the conventional 350ml 6-can pack and by 81% for the 500ml 6-can pack. Adopting a structure that sticks a tab under the can lid, it achieves greater can-holding power than before, and the can does not come apart even when held upside down. In addition, usability is improved by illustrations icon that intuitively understand how to take out the can on the small advertisement surface.

According to research by Asahi Breweries, Ltd., this is the first paper material used in Japan for 6-can packs that clip only the upper part of the can body. If all 6-can packs manufactured by Asahi Breweries, Ltd. are switched to "ecoPACKs," the amount of paper used is expected to be reduced by approximately 8,800 tons per year, and CO2 emissions associated with material manufacturing are expected to be reduced by 7,400 tons ("). We expect to reduce the paper area by approximately 31.18 km2 per year. ": Based on the shipment results of all Asahi Breweries, Ltd. 6 can pack products in 2019.





### Development of Shock absorbing Spacers to Reduce Man-Hours and Environmental Impact

Company: SANRITSU CORPORATION

Category: Transit

About 500 aluminum cases of three types are regularly shipped per month using air cushioning materials and cardboard boxes.

However, the packaging required a lot of man-hours, presented inconsistent quality and wasted singleuse cushioning materials.

To solve this issue, we have developed an easy-to-work and reusable plastic spacer which can be set in the front and back of the contents and fastened with a band.

In addition to making work easy and ensuring stable quality, this is commonly applicable to three types of the products, simplifying the material management. As a result, the previous monthly disposal of 6000 of air cushioning materials has been completely eliminated to zero waste, and the time spent for packing work has been reduced from three minutes to less than two. The spacers can be stacked when not in use to save space.

### **Reversi Board**

Company: RENGO CO.,LTD

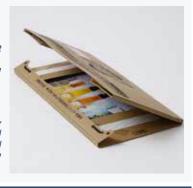
Category: Point of Sale

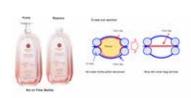
We have developed a store sales promotion board that is printed on the inside of the outer box and used inside out to achieve zero waste and to reduce the efforts of in-store disposal operations.

①The cardboard stands are included in the folded flaps at both ends of the board, and the outer box can be transformed into a promotional board.

The board has an increased warp strength by setting 15 mm frames on the top and bottom of the board.
3 The board can be extended 150mm to the left and right. With these new specifications, it achieved

(S) The board can be extended is some that a funding it. Will these new specifications, it achieved reduction by approximately 53% in amount of paper used, and 25% in transportation costs compared to current style. The board extends 150mm to each side, and the size can be fixed by using double-sided tape. By intentionally pasting another piece of tape diagonally over the double-sided tape, the release paper of the double-sided tape will not completely come off, which helps to accomplish zero waste when using the board. A cardboard stand and small POPs can be packed together. Thick POPs can be stored inside the package as well. Both ends of the board are folded back to strengthen the board, and to prevent POP from being smashed during transportation.





### **MyKirei by KAO Nourishing body wash** (Air-in Film Bottle) Company: Kao Corporation

Category: Health and Personal Care

For earth

- · Reduction of plastic compared with conventional rigid plastic bottle
- · Reduction of waste volume because of thin and flat shape after removing air

For consumer

- Low residue

  Enable to dispense to the last drop hygienically; preventing any foreign matter from getting inside
- · The bottle consists of 3 films and a spout with a screw. · Air-tube structure with outer 2 films and high-
- pressure air is formed at the top, body and bottom. the film bottle has pumping strength and stand-up stability.
- Only inner film shrinks as the remaining amount decreases by using airless pump.





### **Smart Storage for Included Items**

Company: KYOCERA Document Solutions Inc. Category: Other

We decided to sell a high-capacity ink supply unit as a function enhancement device for our production inkjet printer. Items shipped with the unit vary in shape and material, including an L-shaped part with poor packing efficiency and long hoses that cannot be bent. Therefore, we developed a packaging that puts the included items into cushioning materials for the unit so that the packaging size was not enlarged by the included items. As a result, the number of loading stages in shipping containers has increased from two to three and the transportation efficiency has been improved by 50%. Furthermore, the amount of packaging materials has reduced by 30 % because the boxes for the included items are no longer needed.





### Stag beetle-shaped lock

Company: Daio package corporation

Category: E-Commerce

New design for a packing material has developed for the purpose of resource saving and cost reduction because manufacturing cost and environmental cost relating corrugated cardboard box for mail order delivery have been increasing. A previous locking mechanism using outer flaps requires long outer flaps for locking mechanism to temporarily lock sealing surface (lid part surface), which causes increased amount of resource used in packing material. Thus, "Stag beetle-shaped lock" takes advantage of part of inner flaps to form temporary locking mechanism, and are designed to use shipping label for sealing instead of tape sealing. As a result, assembling a cardboard box is realized with material area equivalent to that of a previous packing material without temporary locking mechanism (such as 0201 model)



### **JORDAN**



### green fields

Company: Green Fields Oils Category: Food

attractive package for the tourists who visit Jordan to take it with them (package reflect petra one of the brilliant ancient city in Jordan.) and includes 12 small glass bottles of different oils produced by our company) the package helps us in marketing and promoting our products. the material used: corrugated carton, the package is easy for handling. also other attractive design for amman used on other package for the same promotional goal.

### **Packaging for paintings**

Company: Rising Phoenix Gallery for Arts

Category: E-Commerce

Before covid, we only operated the business through direct sales in the physical space of the gallery and the consumer used to come and select the painting which limited the visibility of the product. The packaging comes in three sizes tailored for three-sized paintings. Online marketing allowed the option of presenting the paintings as shippable products which we are currently exploring through online sales using platforms, allowing the product to be delivered to the consumer without damage. Because of the e-commerce and getting feedback data from the clients, we learned that some sizes were more popular and this aided the standardization of the process. For instance, improvements were done to reduce delivery time by having the popular package size on stock and demand. Today, we no longer only use the personal platform, but venturing out to other local and global platforms that showed interest in displaying our products.



**LATVIA** 



### **CHOPPY BIKE PACKAGING**

Company: STORA ENSO PACKAGING

Category: Toys

Cardboard packaging for CHOPPY BIKE – kid bike designed without any screw connections, replaced by 'clip system', characterized by its lightweight. Packaging is inspired by the product. Lightweight is underlined with a thin (E-profile) corrugated cardboard. Just as the product avoids screws, packaging avoids adhesive parts. Packaging is adapted to euro-pallet. It consists of 3 parts: 1/ Outer packaging: a transport and primary packaging. 2/ Inner box: contains and protects the product itself, and considering sustainability has a second use approach – table game 'Draw what you see' or used as a road for toy cars, where upside-down inserts become tunnels. 3/ Small box: for component connections. The product development took into account the dimensions of effective palletizing, including the place for packaging, focused on compact and safe packaging of product. When this packaging becomes waste, it can be recycled again, as it is a 100 % recyclable material that can be re-recycled.

### **LEBANON**

### **Tanmia Frozen Pre-cooked Packaging**

Company: Agricultural Development Company - Tanmia Category: Food

The creative idea in Tanmia bag design is while the product is presented on a white plate on the front of the bag & the same plate seen from the back featuring the product info & cooking instructions. The design idea is witty and creates a surprise when one checks the back of the bag. It also creates complete coherence in the product presentation. The design is a bold move from Tanmia to elevate the category from a dominant commercial approach to a more elegant, fun & contemporary one





### **About LibanPack**



### **Providing Innovative Sustainable Packaging Solutions**

LibanPack, the Lebanese Packaging Center, was founded in 2008 as a non-profit private sector association representing stakeholders from the food and packaging sectors in Lebanon. It stands as a national central point for all economic operators concerned with packaging, including: manufacturers, users, converters, suppliers, designers, testing institutions, packaging specialists, providers of training and educational programs and students.

### Services



Packaging Design



Training



Consultancies



Branding



Packaging Testing



Packaging Competition



Technical Label Review



Packaging **Feasibility Studies** 



Web Design & Development



Networking & B2B



**Events** Management



Conferences &Webinars



www.libanpack.org



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### The First Arab Professional **Packaging Competition!**

### **Categories of the Competition**



**Food** 



**Beverages** 



Personal Care and Household



**Cosmetics and Beauty** 



E-commerce



**Luxury Packaging** 

**Pharmaceutical** 

and Medical

Industrial and

Point of Sale

**Packaging** 

Transport Packaging



Fresh Fruits & Vegetables



**Packaging Materials** 



• • • Other



**Apply Now** www.arabstarpack.org

### **Crispy Hot Meal Box**

Company: UNIPAK Category: Food

The Crispy hot meal box adds to standard takeaway packaging an increased consumer satisfaction with a more sustainable approach that reduces the amount of absolute material used in this industry.

With the help of indirect ventilations the crispiness of the delivered food will enhance the customer experience while maintaining the food product safety, and conserving its temperature, this will decreases the amount of food waste due to sogginess.

The purpose of the crispy hot meal box is to deliver hot meals from restaurants to consumers while keeping it fresh and crispy. Water vapor condensation inside delivery packaging is the main reason for soggy food and adding ventilation holes renders the packaging unsafe for food transport. With the indirect ventilation holes in this box the food is safe from the external environment while properly evacuating steam to maintain the food quality for the duration of the delivery.



### **Medical Device Packaging Solution**

Company: UNIPAK Category: Transit

The ventilator appliances package Eliminates the usage of petroleum based products and replaces it with corrugated board that is certified as a sustainable alternative all while maintaining the protection levels provided by petroleum products. Moreover, the replacement of petroleum-based fillers did not affect the size of the shipper box or the capacity of a container load during shipment.

The ventilator package objective is to transport the delicate / delicate medical equipment from manufacturing to hospitals, with highest protection and least cost. Most electronics and electrical appliances utilize the EPS foam to create the needed padding that protects these products from damages. We came up with a sustainable alternative to provide the same level of protection out of paper based packaging, by utilizing fully recyclable corrugated paperboards to hold the device in place and protect it from damage.

### **Hachichit Albé**

Company: Hachichit Albé Category: Beverages

Our packaging is 100% eco-friendly with only recycled, recyclable, biodegradable and reusable material:

- Paper material is unbleached, food safe, recycled and recyclable
- All plastic shrink and pocket films are biodegradable.
- Recyclable tea box and tea pouches can be reused as tissue boxes and herb storage pouches.
- 100% natural herbs in hand-sewed unbleached cotton tea bags hanging on bay sticks
- Handmade, glued and packaged by rural women and people with speech and hearing





### LIECHTENSTEIN



### VivaPen

Company: Ivoclar

Category: Medical and Pharmaceutical



Our Adhese Universal VivaPen delivers what it promises: The revised dispensing mechanism enables dentists to get to the adhesive in a single click. The adhesive can be applied quickly and efficiently directly in the oral cavity, resulting in more accurate and economically more effective applications. In keeping with the motto "Making People Smile", VivaPen puts a smile on the face of dentists as well as patients. This efficiency is also reflected in the innovative packaging design. So, it was not without a reason that we were given full score in the category 'Economic Efficiency'. This category evaluates criteria such as process optimization, reduction in the use of packaging and packaging materials, minimization in logistics and distribution expenses and reduction in packaging and/or waste disposal costs.

The current version of Adhese Universal VivaPen provides an even higher dosing accuracy and precision than previous versions. This allows the adhesive to be applied exactly where it is needed. With up to 187 individual applications, the current model offers up to four times more applications per millimetre of content in comparison to conventional bottles. Not only that, the new VivaPen minimizes material waste in two ways: less material gets wasted per application and the VivaPen can be emptied to the last drop, resulting in an extremely economical use of material.

### **Modified Atmosphere Technology**

Company: Masterpack Group BV Category: Food, Digital Packaging

We have developed a complete Modified atmosphere packaging (FIBC). This includes a sensor to measure the oxygen rate, humidity and temperature within the packaging. Through wireless measurements we can see live or at least 4 times a days what are the values within the packaging. This can prevent a lot of food waste for product within the FIBC. All our MA FIBC are made in cleanroom production facilities under BRC, ISO 2200 and GMP conditions to make sure they can be used for direct food contact. And all our materials including the valve come with food declarations. Even the sensor is designed so that it cannot harm the product in any way.

We have developed a complete product line for MAP. We start with the specific film/ foil we use for our liners, the sealing equipment for sealing the liners, the connecting valve on the liner, machines for vacumizing and degassing of the liner and FIBC and the sensor for measuring the oxygen, humidity and temperature values. This total concept makes it possible to go very low in oxygen and keep those low values. Our modified atmosphere packaging covers multiple aspects of packaging benefits. Not only does it keep your product protected from external influences and pests but it also extends the shelf life, and contributes to a more sustainable supply chain.

### NETHERLANDS





### Padded paper mailing bags

Company:RAJA Norway Category: E-Commerce

This new padded paper mailer is an innovative packaging product for ecommerce companies. The padding inside is made of honeycomb structured paped, covered in paper on the inside and outside. As this is a monomaterial product, made of paper only, it can easily be recycled, and it is efficient to use for ecommerce employees. The paper mailer is available in 5 different sizes to fit various products. The mailer delivers good protection of the products inside, and as it is lightweight, it helps save postage costs and therefore makes a cost efficient packaging solution.

The product is innovative! Only one material is replacing the previous packaging. Just paper. The monomaterial solution gives multiple possibilities. If you compress it, it stays compressed. The Scanstar jury was impressed with the product and advise that it may be suitable for new applications in Scanstar 2023.



### SeaStretch - the first manual Stretch Wrap made of paper

Company: RAJA Norway Category: Transit

Transport packaging. The paper stretch film SeaStretch is an environmentally friendly alternative to traditional plastic stretch film used to wrap and contain loads in shipping and storage. The paper solution is creped, which makes it flexible, stretchable, and highly resistant to tearing. This kraft paper pallet wrap is made from PEFC certified natural kraft. It is ideal for wrapping standard and homogeneous pallet loads up to 200kg. Featuring a sticky inner layer, it provides excellent support for goods during transport and storage in the warehouse, while protecting them from dirt and dust. Fully recyclable, this eco-friendly stretch wrap is a perfect alternative to plastic stretch film and wrap.

SeaStretch is produced by Seman Paper Europe GmbH.

Scanstar jury's motivation: Good and innovative product. It's a step further. Brown packaging may reduce damages to the product. Could also be good for wrapping items, it has a potential for other uses.

### **POLAND**

### **R-Pack**

Company: Werner Kenkel Bochnia Sp. z .o.o. Category: E-Commerce

R-pack redefines the way we think about e-commerce delivery solutions, introducing idea of multiple use cardboard package. It's quick and easy to assemble (fig.1). Thanks to patented system of stand-alone cardboard locks and dedicated slots at the front of the R-Pack box (fig.2), it can be easily locked, providing high level of protection. Customer can easily open the box (fig.3), check the product and return if not happy with it, using returning lock placed inside the box by sender. If customer wants to keep the product, empty box can be easily return to the sender. Box can be disassembled by unlocking side panels and fold down to compact, self-locking, space saving shape (fig.4). In this form box can be passed to the courier or placed inside the locker. R-Pack returned to sender can be reused with a new set of locks. When R-Pack reach the usage limit, it can be easily dispose. R-pack life cycle is shown on figure 5.



### **HandyPak**

Company: Smurfit Kappa Polska Sp. z o.o. Category: Fresh Fruits and Vegetables





HandyPak packaging, made of corrugated cardboard, is mainly designed for direct sales of berries and stone fruits. In the design of the packaging we used the innovative idea of an integrated handle, which does not require an increase in the area of the sheet! Thanks to the functionality of the packaging, we significantly affect the reduction of plastic consumption in this sector. They are available in various volumes, from 250g to 1kg.

### L'arc

Company: Werner Kenkel Sp. z o.o. Category: Luxury

The inspiration for the creation of this packaging was the Paris Grande Arche de la Fraternite, that is the Great Arch of Brotherhood. What builds relationships, friendship and brotherhood more than an evening spent in good company and a little exquisite liquor? And what if it is "Ostoya the Charcoal Filtered Ecition" elegantly wrapped in... "Larc"? Then, we daringly combine the unspoiled nature of the Polish mountains with European modern culture, which is embodied in the business district of Paris — La Defense — and its symbol — the Great Arch of Brotherhood. The "Larc" packaging was designed to secure, but at the same time — to emphasise the highest quality of Polish vodka from the "Ostoya" family. The highest-quality raw materials and the latest technologies were used in the construction of this packaging.

The combination of a matte print with metallised cardboard and appropriately composed accents with a raised print add elegance and nobility to the whole concept. The "L'arc" packaging is made of the most natural material – cardboard, and it has been thought out in such a way that after the bottle of "Ostoya" vodka is taken out, it can live a second life, as a small display or an elegant shelf. Moreover, by arranging many packages in various configurations, you can create an infinite number of other forms. Here, you are only limited by your imagination.





### Modular corrugated cardboard rack

Company: Mondi Warszawa Sp.zo.o.

Category: Other

Currently, online sales are growing at a fast pace. One of the consequences of the scale is the notorious lack of storage

space. Internet companies often move to larger warehouses or reorganize existing ones.

The demand for warehouse space is still growing. The reason is the increased interest in online shopping. Modular cardboard racks, which are a great alternative to standard storage racks, can help in this challenge.

Using this solution, moving, expanding or reorganizing a warehouse is much simpler and faster compared to metal racks. The cardboard racking system is lightweight, so the entire rack can be easily moved from place to place, at the same time, it is durable and resistant. It is an environmentally friendly and easy-to-recycle solution, which is equally important for large logistics and fulfillment operators. The modular system can be easily adapted to individual needs and its price is competitive with traditional metal racks.





### 4wine

Company: Werner Kenkel Sp. z o.o.

Category: Beverages

Wine is undoubtedly one of the world's biggest treasure. It marked its importance in Middle Ages and today also has important functions (a favorite liquor, an integral part of some dishes and social gatherings, and even a form of investment). A glass bottle, often wrapped with a sophisticated label, is great packaging for wine itself. However, such a bottle is not always enough while searching for a glamorous gift packaging. That is why 4wine was created. It is a packaging made out of love and respect for wine. Aesthetically pleasing, matching bottle bottom and lid, which at the same time is a meticulously designed, gravity-defying stand, on which the bottle can rest peacefully at the right angle, at which the cork is flooded with liquid paving the way for air (so that the wine retains all its qualities for a longer period of time).

To make the display, recycled paper corrugated cardboard was used. The printing was done with digital technology.

### **SINGAPORE**

### **ISO Pest Free Pallet**

Company: LHT Holdings Limited (Singapore)

Category: Transit

ISO Standard 6780:2003 Flat pallets for intercontinental materials handling-Principal dimensions and tolerances Is one of the six ISO-approved pallet sizes, although the 1200mm x 1000mm pallet is better suited for export from Asia to Europe and the US as these dimensions integrate nicely into both regions' systems.

Compliance to ISPM 15 Clause 2.1\_Exemption; wood packaging made wholly of processed wood material. No requirement for heat-treatment or furnigation and stenciled of IPPC Mark for export. Wood pallets are susceptible to insect infestation and ISO pest free pallet eliminate all these wood pest issues. The ISO Pest Free pallets when exported to the receiving country can be reused and export with goods again without going through heat-treatment process unlike natural wood pallet that require to be heat-treated again from the receiving country when reuse for

Lower in CFP: Cradle to Production CFP@15.45 kgCO2e compared to natural wood pallet@28.68



**SLOVAKIA** 



### PE monostructure barrier bag

Company: Chemosvit Folie s.r.o.

Category: Packaging Materials and Components

PE barrier laminate - duplex, monostructure, fully recyclable, designed in accordance wiht CEFLEX principles, for nuts, dried fruit or any other food packaging:
- energy saving EB offset printing technology, solvents-free,
- white appearence of the film allow the reduction of 100% white printing ink and thus reduction of non-recyclable content,

- alternative to non-recyclable triplex PET structure,
- reduction of one production operation of the lamination from triplex to duplex structure, reduction of the adhesives (non-recyclable content), reduction of CO2 emissions
- 95% recyclable content, PE recyclable stream, regranulate suitable for the production of new flexible film,
- Delievered as the film in reels for packaging machines or as a Stand Up Pouch with zip (higher stiffness of the laminate)
- Low initial sealing temperature and decrease of sealing jaws temperature by more than 30°C compared to standard PET

### Christmas Tea Gift Packaging Set

Company: GRAFOBAL, akciová spoločnosť

Category: Gift Packaging

Partial cold embossing with silver foil is used with food grade FSP inks printed in a single pass through the machine, creating varied light and colour effects even when only CMYK is used. This is followed by UV varnishing with food grade varnish with a matt-gloss hybrid effect. Multi-level embossing on traditional folding machines, with hand-engraved embossing dies, allowed for maximum embossing depth and detail. The improved packaging design with fine die-cuts creates "feet" that allow for a stable packaging presentation. The sculptural effect of thermographic printing

in its various mutations, as opposed to hot embossing, appears more subtle and balanced. A gift set of 4 different teas is the ideal concept for a tailor-made gift in terms of both the number of packages and the preferences of the person being gifted. The sophisticated graphic design references traditional Christmas motifs in a retro style, but also a more abstract thematic concept. After the packaging is adjusted, a decorative bow is tied, which clearly places the product in the gift segment.





### Contan Multilayer PCR Bucket 20L

Company: Polyoak Packaging (Pty) Ltd

Category: Other

South Africa's first multilayer bucket containing post-consumer recyclate (PCR)!

The inner layer, rim and lid are virgin polypropylene (PP) to ensure secure lid fitment and prevent leakage, as paint and chemicals interact more aggressively when in direct contact with recycled polypropylene (r-PP). The middle layer comprises r-PP which has 70% lower Global Warming Potential\* than virgin PP.

This bucket contains 42% PCR which significantly reduces its environmental impact whilst increasing demand for r-PP, which in turn increases collection and recycling rates of used PP containers to advance Circular Economy. The end-result is less plastic pollution and landfilling; and more economic opportunities for South Africans.

Virgin outer layer enables perfect colour matching and sharp decoration. This mono material PP bucket is fully recyclable. Finally, a PCR bucket with the critical technical functionality and aesthetics of a virgin bucket. Doing the right thing no longer has to be a compromise!

\*Source: https://plasticsrecycling.org/images/library/2018-APR-LCI-report.pdf





### **Blowpack Multilayer PCR Drum**

Company: Polyoak Packaging (Pty) Ltd Category: Other

This Multilayer Drum with 30% post-consumer recyclate (PCR) is UN Approved.

The inner layer and closure are virgin high density polyethylene (HDPE) to protect the integrity of the contents and guarantee its

safe containment. Using natural HDPE inside also saves on masterbatch.
The middle layer comprises recycled HDPE (r-HDPE) which has 70% lower Global Warming Potential\* than virgin HDPE Sealing the PCR in the middle layer enables more consistent production of higher quality drums. Even dark-coloured r-HDPE can be used as UV protection.

The 30% PCR reduces the drum's environmental impact, whilst increasing demand for r-HDPE. This increases collection and recycling rates of used HDPE containers to advance Circular Economy.

Virgin outer layer enables exact colour matching for consistent and impactful decoration. This mono material HDPE drum is fully recyclable.

Finally, a PCR drum with the critical technical functionality and aesthetics of a virgin drum! \*Source: https://plasticsrecycling.org/images/library/2018-APR-LCI-report.pdf

### SOUTH KOREA

### **Eco Shut off Tube**

Company: yonwoo

Category: Health and Personal Care

- Dispensing channel opens and the formula comes out concurrently while squeezing the tube body, and it closes and no longer dispenses immediately when the user stops squeezing.
- Replacing metal spring with TPE spring.
   95% of the total weight consists of Polyethylene and the other 5% from TPE.

Visual recognition of formula blocking through the vertical movement of the nozzle. (Verification is achievable by molding color change of nozzle)





### Glass airless pump packaging for Refill

Company: SAMHWA Co., Ltd., Korea Conformity Laboratories Category: Health and Personal Care

As produced by one of the key players in the airless market on an international level, the Glass Refillable Airless boasts its elegance in design, safety, and proper functionality. Using the sustainable modular pump, this pack opened the doors to a new cosmetic application technique while the exclusive aesthetic, provided by the pairing of the glass to the airless dispensing system, melded perfectly with the polypropylene inner bottled enclosed within the glass ensuring product purity. The sophisticated and contemporary design is enhanced by the use of glass, a luxurious and aesthetically-pleasing material. Thanks to the perfect fusion of technology, Glass Refillable Airless represents packaging with style. This explains why Samhwa's Glass Refillable Airless has become a winner as iconic packaging.

### Portable Butane Gas Canister with Gas Passage Blocking Function (SunPower Premium)

Company: TAEYANG CORPORATION

Category: Other

- Portable butane gas canister with a gas passage blocking function which has a shape memory spring that responds to external temperature.
- When the heat and pressure inside the canister reaches dangerous level, the ABS valve, which is used in the canister, automatically blocks the gas passage and turns off the flame. In addition, by combining RVR(rim vent release) and TSR (triple seaming rim vent release) technology, it is the world's first portable butane gas canister which is equipped with triple safety devices. Portable butane gas product equipped with the world's first triple safety devices.
- With our installation structure of safety device, we have acquired overseas (US, Japan, and China) patents. US: 16/954,572, Japan: 2020-561557, China: 201880087686,9





### Jeju Samdasoo RE:born (CR-PET)

Company: Jeju Province Development Co.

Category: Beverages

DateSury: Developes

Jeju Samdasoo RE:born (CR-PET) is the first drinking water product in South Korea to apply chemical recycling technology

We developed a package that applied 30% chemical recycled material in collaboration with PET chip manufacturer Sk

Chemicals and released it first time in the Korea.

A packaging is produced as a preform by mixing 70% virgin PET chip and 30% chemical recycled PET chip, 100% recyclable. and label-free PET bottle. In order to increase Eco-friendliness, this label-free product uses colorless bottle reduces plastic by nearly 280 tons a year by lightweight 10%.

Jeju Samdasoo RE:born (CR-PET) was judged to be suitable for food containers for drinking water quality standards and container dissolution standards of the Ministry of Environment of Korea and the U.S. Food and Drug Administration (FDA). Jeju Samdasoo RE:born chemical recycled PET (CR-PET) refers to PET made again using a "depolymerization" technology that recovers raw materials that can produce clean PET through a chemical reaction of collected PET bottles. Through chemical recycling, mixed plastic waste can be effectively and continually reprocessed into usable material. It means plastic bottles can be used repeatedly as plastic bottles, which is the point of the "plastic resource circulation" system. It has now mass-produced and started selling Jeju Samdasoo RE:born (CR-PET bottles of 30% of chemical recycled materials), and is currently developing PET bottles of 100% chemical recycled content.





### Insulation Paper Pouch (The Kurly cold storage pouch)

Company: Kurly Category: E-Commerce

- -Paper pouch with insulation and buffering power by forming air layer and thickness using paper honeycomb
- -The number and thickness of the inner honeycomb layers can be adjusted and the method can make the pouch to preserve the insulation layer as possible as to ensure cooling and cushion effect.
- -Maximize logistic efficiency by increasing loading efficiency compared to box packaging materials and EPS (Styrofoam box) with minimizing external volume.
- -Paper usage is used 0.7 times less than general corrugated box, reducing the amount of paper used (54% less than corrugated paper)
- -The pouch can replace EPS box and its small volume can make people easy to disposal them. It also effects the environmental burden of disposable use by applying highly recyclable paper materials.

### Easy- to- remove plastic cap

Company: CJ Cheiljedang, Packaging R&D Department

Category: Packaging Materials and Components

For oil products in glass bottles, a punch cap type plastic cap was used instead of a screw type to prevent leakage. When the consumer tried to remove the cap after using it all, the punch cap was not easy to separate without using a tool or the like. This technology was developed to facilitate the cap separation of the sesame oil bottle products produced by the company.

1) Anyone can easily remove the cap without using a tool when removing the cap

- 2) Easy tab allows consumers to intuitively grab and tear
- 3) With a slanted tear line on the outside of the cap, it can be separated even with a small force
- 4) Existing production line can be used as it is with minimal changes such as appearance from the existing cap

5) Recyclability is facilitated from difficult to excellent packaging material grade

Set the initial starting point to a thinner thickness than before so that you can grab the easy tab at the bottom of the cap and turn

it to tear it off ■ It is designed to rotate once with a gentle slope on the outside of the cap, so it can be separated even with a small force. ■ Designed to separate the vial from the joint of the cap with a tear line that rises vertically from the sidewall ■ In order to finally remove the cap from the upper part of the bottle, the incision section is set up to 180 degrees, and the entire separation is possible with little force by holding the torn lower part compared to the area.





### Nexrier® - Eco-friendly packaging materials with high oxygen barrier properties based on protein

Company: EVERCHEMTECH

Country: Packaging Materials and Components

Nexrier® is an eco-friendly gas-blocking biodegradable barrier material that is made from protein-derived by-products such as milk and cheese. This proprietary technology of Evercamtech not only can be applied to paper and biodegradable materials (PLA, PBAT, PGA, etc.) but also to other substrates such as OPP, BOPE, MOPE, etc. to manufacture high-barrier packaging materials with excellent recyclability. Not only Nexrier® can be applied to food packaging that maintains freshness, but also to laminate tubes of cosmetics and household products, replacing onventional AI deposition or EVOH, which is currently used. In addition, it is an eco-friendly packaging material that can be applied to facial masks, face masks, and pharmaceutical packaging. The figures related to eco-friendliness, packaging efficiency, and high functionality of Nexrier® compared to existing materials are as follows. 1. [REUSE]coating material using natural protein by-products, that is renewable raw materials. 2. [RECYCLE]According to the KCL(Korea-related institution) evaluation results, Nexrier® has excellent blocking properties, hence no need to use film with multi-layer. Films with Nexner® are proved to be treated as "mono-material(single component material)" and evaluated as "Excellent" in the evaluation of the packaging structure. 3. [REDUCE]EVOH needs to have at least a thickness of 12um to 50um to maintain high performance as a gas barrier, but Nexrier® can reach the same physical properties even with a thickness of 1~3um. 4. The environmental hazard assessment results 1) No hazardous substances were generated during REACH and FDA tests. 2) 96.3% reduction in LCL environmental impact assessment (resource depletion, global warming, etc.). 5. Certified Korean Green Technology Products confirmed as Green Technology.

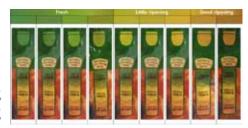
### Indicator packaging that can check level of ripening kimchi

Company: CJ Cheiljedang, Packaging R&D Department

Category: Labeling and Decoration

Through this technology, ①The level of ripening of kimchi can be accurately checked through the reaction between carbon dioxide generated during fermentation and the developed ink. (2) The amount of disposal can be minimized by delivering accurate taste information to consumers due to the specificity of Kimchi, which differs in taste & preference according to the level of ripening. (3)It is a completely safe packaging technology because there is no direct contact between the indicator and the contents of the packaging by utilizing the diffusion phenomenon of carbon dioxide.

Development of three color changible material for consumer convenience ① Implementation of an intuitive color system that changes to three colors as progress (Green ▶ Yellow ▶ Orange) ② Development of Kimchi customized materials in consideration of price/safety/discoloration range (3) Help consumers understand with clear color change Development of non-contact reaction mechanism (1) It was developed to enable measurement and color change without direct contact with the product by improving ink reactivity, suggesting a fundamental solution to the issue of dissolution/contamination through food contact.





### 2 IN 1 Dual-cartridge Master blending packaging

Company: SAMHWA Co., Ltd., Korea Conformity Laboratories

Category: Health and Personal Care

Catering perfectly to the consumer needs who prefer two products at once as their beauty routines, Samhwa's Master Blending pack is practical to use, guarantees formula integrity and high product restitution, but most importantly, it's the dip tube atmospheric dispensing system for dual use. With variable pump at the top of the pack, consumer can adjust the amount of the two formula products by twisting the closure (shoulder). The two refillable cartridges (inner bottles) from the bottom of the pack after removing the base part is another feature of this excellent pack. While maintaining its large capacity, this pack can be customized with an ample variety of effects and decorations (screen printing, hot stamping, metallization). This makes Samhwa's 2-in-1 Master Blending a winner for the contest.





### ECO returnable fresh box

Company: Zerohouse

Category: Fresh Fruits and Vegetables

can make the most of the space even when logistics are moved.

As an eco-friendly foam resin different from the EPS box, it is a reusable packaging box, not a one-time consumable. Glazing surface treatment technology is applied to the inside of the box to vitrify the inner surface, thereby increasing

surface strength, being effective in removing foreign substances, and being hygienic even when washed several times. By applying a folding structure, a large amount of boxes can be stored when loading the warehouse, and the folded boxes

Compared to existing EPS boxes, it is a product with excellent reuse and destructive fatigue, and has a much higher



### **SPAIN**

### **ENOVO**

Company: Alzamora Carton Packaging

Category: Food
Enovo is the sustainable solution from Alzamora Group that aims to replace the current egg packaging on the market.

A simple, comfortable, and practical packaging, made up of two unique elements: a cellulose base and a cardboard lid. Thanks to the opening in the top lid, the eggs are totally easy to remove, which adds practicality to the solution. We consider that Enovo has a great positive impact at an environmental level for different reasons. On the one hand, it helps to change consumption habits, making society aware of respect for our planet. On the other hand, the solution manages to significantly reduce the impact of the carbon footprint. In this way, the companies that implement this solution will also participate in a much more efficient and environmental business model, such as the circular economy. The ergonomics of the packaging, perfect for its grip, provides more space for communication and protects the product. We would also highlight that it can be printed on five sides, thus increasing the impact at the point of sale. The material used is made from recycled also highlight that it can be printed of more study, and sincreasing the impact at the point of sale. The material deed is made into recycle fibres, which allows its total recyclability and biodegradability. Enovo packaging can be applied manually or automatically. Thanks to the machinery that we have developed, designed and patented especially for the solution, the same current levels of cadence and productivity are maintained. At this point, we can see that we are facing a totally innovative packaging. With the minimum use of cardboard, recyclable and totally biodegradable, a solution has been achieved that offers the same characteristics as current plastic solutions.





### **4LIQUIDS**

Company: FONT PACKAGING GROUP

Category: Transit

Unique 900 litre container for liquids, made of corrugated cardboard an reassembled maritime transport Liquid container suitable for the transpord of food and chemical products with different ranges o protection. It has designed that allows it to be traced inside a shipping container.



Company: Smurfit Kappa Category: E-Commerce

This is a protector and stabilizer for bottle shipments, adaptable for both wine bottles and other formats. By creating air chambers inside the box, the device is able to provide stability to the product inside the box, allowing it to be protected by the air chambers. This project is based on sustainability and the elimination of potentially contaminating components. Changing from a solution that consisted of different materials to monomaterial packaging which is also renewable, 100% recyclable and sustainable.





### ONE PIECE WINE PARTITION

### One Piece Partition

Company: Smurfit Kappa Category: Transit

It is a versatile and practical conditioner for 6 wine bottles that can be folded and glued in one step, making it a highly productive and environmentally friendly product. Previously, wine bottle inserts had to be assembled on a dedicated machine, and then inserted into the box in a multi-point gluer, which was slow and unproductive. This redesigned conditioner consists of one piece which doesn't need to be preassembled and can be inserted directly into the multi-point gluing machine while the box is being folded. It is glued to the box and to itself in such a way that deploys when the box is opened.

### Beardburys x Gas Monkey

Company: Carobels Cosmetics S.L.

Category: Health and Personal Care

Amazing, iconic and unique. This is the limited edition that we have created from the spectacular collaboration of Beardburys and Gas Monkey Garage, bringing together the best of both worlds of male grooming and the automobile to recreate the iconic and classic motor oil cans in a format with a unique finish and an exclusive element... The can is patented! Yes, as you read, patented so that you don't just have any old can but YOUR own limited edition, with an opening that acts as a piggy bank so that you can fulfil your dreams as we fulfil ours. We know that every man is different, for this reason we have brought our essence to every style by creating this limited edition in four versions: for the beard, for shaving, for a hair routine with a matte finish and another for a glossy finish. Don't you have it yet?

Beardburys is committed to a policy of Corporate Social Responsibility (CSR) through its commitment to R3: Reduce, Recycle and Reuse. Our iconic packaging fulfills these three premises as it is a unique element designed specifically for its subsequent use and collection, where no waste is produced after its sale, but it provides added value wherever it is placed, and begins to save to fulfill your dreams. In addition, in its production are used fully recyclable materials, such as tinplate. What more could you ask for!





### Secure E-Box

Company: International Paper Category: E-Commerce

It is a package for e-commerce with the adaptation of lateral tabs that allow the closure of the container to be blocked, making it "inviolable", once closed it can never be opened without the closing flaps breaking on the sides and realizing that the packaging has been "violated or opened". In addition to these locking side tabs, the package has 3 more front tabs, one (the middle one) to be used for the 1st use and the other two for the 2nd use This package replaces all the plastic that these types of boxes contain, such as two strips of double-sided tape

and adalis plastic tape. This package can have these uses:

Shipping to the customer

The return from the customer to the supplier

Another use, because after the two previous uses the package is not destroyed.

### **Match Tonic Water**

Company: Durero Packaging (Groupe Autajon)

Category: E-Commerce

The Match Tonic Water pack is an innovative design as it has been optimized for e-commerce sales, with a totally particular and unmistakable aesthetic. It was developed to house 4 units of this disruptive squareshaped bottle, made from 100% recycled glass. The brand opted for a square pack with rounded corners that echoes the form of the bottle. Furthermore, the carton is delivered flat and unfolds in a single gesture. A folding handle with a self-clamping system is integrated into the cross separator to protect the bottles between them. The handles also act as a lid, enabling the clusters to be stacked.

Graphically, the visual code of the bottle's perforated labels is reproduced on the cardboard by means of a doted relief pattern.

The structure of this package is made so that it conforms in the most optimal and easy way from flat. Once unfolded by pulling the handle, the cross-divider automatically forms and the retailer can fill it with the 4 bottles. The handles can then be folded down and remain locked onto the bottle caps by the pull-tab functionality of the handle. This helps prevent the bottles from shifting out of the pack during transport and prevent movement even at 180° degrees. For the consumer, the ergonomic en planned with the folding handle that facilitates its transport due to the basket shape





### Concentralia® Naturbio® EcofoamSystem®

Company: SALLÓ KYRA, S.L.

Category: Household
Concentalia® Ecofoamsystem® Naturbio® is a range of Ecological products registered by the European Community as Ecolabel, a distinction granted by the European Commission to differentiate products registered by the European Commission to differentiate products that meet certain ecological conditions ensuring a limited environmental impact. Corresponding to the category of cleaning products for hard surfaces (Reg. No. ES-CAT/020/024). These environmentally friendly products are also concentrated and with a patented EcofoamSystem® instant mixing and refilling with

tap water, we create a product "in situ", the economic savings, ease of use, quality, performance and environmental sustainability are exceptional. It generates healthy and pleasant cleanliness. Giving the user satisfaction, quality, disinfection, innovation, reliability and safetv. Guarantees a significant reduction in CO2 emissions. 10 bottles come out of 1 device, reducing up to 10 times the environmental impact of waste, plastics..., packaging, transport and stocks. 100% recyclable. Concentralia® Ecofoam System® Naturbio® will be the product and the system of the future

Characteristics of the Ecolabel: - Reduction of air pollution - Reduction of greenhouse gas emissions - Limitation of the use of environmentally harmful substances - Low emissions of chlorine compounds and organic residues from water - Reduced consumption of energy and water resources



### **Goliath Box**

Company: Smurfit Kappa

Category: Food

A solution for the agricultural sector, specifically this project concerns the citrus market. This crate model is designed with an angled wall, slightly inclined at 88°. These walls absorb internal forces and make the box much stronger, keeping the boxes aligned whenever they are stacked In addition, the "V" shaped spaces formed by stacking the boxes allow for proper ventilation, ideal for maintaining

an adequate temperature. Renewable, recyclable and sustainable solution focused on customer needs.





### Octogonal Bag in Box for water

Company: Smurfit Kappa Category: Beverages

Sustainable packaging in a unique format for water. An octagonal box made of 75% renewable and sustainable material. It reduces the amount of plastic by 90%, as it is box plus film incorporating less plastic than current solutions which have less capacity than the 8L box format. A cardboard box, a plastic bag made of a light sheet, and an integrated dispenser tap are all part of a complete solution. Easy to separate for proper recycling. Convenient to transport and easy to stack. A sustainable and innovative solution in the water market.

### NATURTILLA SUSCEPTOR CONTAINER

Company: FLEXOMED Category: Food

Susceptor is a material with the capacity to absorb electromagnetic energy and convert it into heat. This energy is typically radio frequency or microwave radiation used in industrial heating processes. Applying this technology to packaging and domestic use, we achieve that bread, a sandwich or a hamburger heated in the microwave, which under normal conditions would come out soft, comes out crispy with the susceptor. When reaching high temperatures, the food has a crispy texture on the outside, and the microwave radiation moves the molecules of the rest of the food to heat it evenly. The time and energy savings are enormous compared to preparing in the oven. In the microwave just 1 minute. Ideal container to take a snack on trains, planes, gas stations and 'on the go' transmitting the feeling of "just Made" It can be done in any type of packaging, in this case



### **SWFDFN**





### Fiber-based Packaging Solution for Lithium-Ion Batteries

Company: NEFAB

Category: Other

This paper-based packaging is ideal for one-way shipments of LiBs, as it reduces the environmental impact of the packaging, reduces the overall supply chain costs, as well as being approved for dangerous goods. The concept can also be used for other heavy products that needs to be shipped in challenging supply chains. Unique fiber-based packaging solution made of straw and sustainable material for Lithium-ion batteries

- It is a mono-material solution made of paper, sustainable and easy to recycle EdgePak straw corners, corrugated sleeve and paper pulp fitments.
- The EdgePak Straw design makes 1+3 stacking possible with over 350 kg per box. It's UN certified to meet demands for transporting LiBs.

To reduce the recycling cost and environmental impact Nefab designed a fiber-based packaging solution for Lithium-Ion Batteries. Compared to the previous EPP fitments, the recycling costs are reduced, and environmental savings are big. The EdgePak Straw solution makes the heavy packaging strong and stackable. The straw corners are recycled together with the paper in the paper recycling stream, which makes it easier for the end user to recycle. Traditionally, straw is burnt producing CO2 emissions. In this solution, Straw is used as a raw material in the manufacturing of strawboard. This improves the health for the local environment due to reduced CO2 emissions, rather than being burnt in the fields.

### **Turbocharger**

Company: aPak AB and Mondi Ansbach

Category: Transit

Turbocharger sets a new standard for safe, sustainable, and efficient transportation. It does so by offering good protection, easy handling and great economics in a sustainable packaging. Similar components are usually sent in solid plastic interior. It is a proven solution, but it's a solution that requires loads of expensive plastic. So instead of going for the proven solution we opted for a cardboard interior that can transport four delicate turbochargers safely around the globe by truck, boat or plane. The result is exemplary as it handles the heavy weight and the harsh conditions with ease, even though the corrugated cardboard is only 10mm thick. This is possible thanks to a unique composition of BCB cardboard that folds to create a base that is as strong as much thicker triple layered cardboard. This technique also generates minimal waste, easy handling, cost savings and an unmatched material efficiency. Keypoints Protection The customized interior keeps the components in place, distributes the weight, and protects the more sensitive parts. The rust protection bags protect the metal from corrosion and acts as a protective layer against scratches. protects the more sensitive pairs. The rust protection begs protect the frietal from concision and acts as a protective layer against scratches. Easy handling The assembly and dismantle process is fast and easy. Each part is packed to facilitate the workflow and is further simplified by the guiding cut shapes. The process includes no fastening and works with Volvo's lifting tools. Cost savings By opting for a solution in cardboard, we lowered the estimated cost for material, freights, and storage by a great margin. The cardboard is significantly cheaper than plastic and can be recycled on site which eliminates return freights. Sustainability The efficient design makes a big difference. So does the small footprint, the lightweight and the recyclability. Not to forget the optimized logistics and the minimal material waste.





### Gentle insert for lamp

Company: DS Smith Category: E-Commerce

This packaging is primary designed to provide the product a gentle environment for e-comm transportations within Europe, shipped in its own container. The product should not have any pressure marks after the

Pholc is a Swedish brand that design lamps. This particular solution is made for a globular shaped lamp, Ø60cm, that is very sensitive for pressure marks. The costumer wanted a well designed fibre based solution that reflected the product inside.



### **SWITZERLAND**



### Mondi's RetortPouch Recyclable - Packaging for fresh, ready-to-eat food by Hilcona for Coop's own brand range

Company: Mondi Group

Category: Food
RetortPouch Recyclable is able to withstand high temperatures during the retort process used in food preparation and is suitable for a wide range of applications in the ready-made food and pet food industries. The packaging, which is used for Coop's products that are manufactured by Hilcona, has an attractive yet sturdy stand-up design that includes a transparent window to allow consumers to view the product on-shelf. Mondi's RetortPouchRecyclable is a post-consumer packaging for food. It is used by Hilcona and distributed by Coop in Switzerland. The new high-barrier stand-up pouch replaces complex multilayer, unrecyclable packaging. The mono-material, which ensures high temperature resistance (121°) and thus short processing times during the retort process, has a lower CO2 footprint and water consumption. RetortPouch Recyclable, made of polypropylene (PP)-based mono-material, offers exceptional shelf life and reduces potential food waste. The innovative packaging can replace complex multilayer unrecyclable packaging that uses aluminum or metallised layers to provide high barrier food protection. The high-barrier pouch will replace complex multi-layer and unrecyclable packaging for a range of food products. Moist or semi-moist foods that are heat-treated in steam or hot water retort vessels to achieve commercial sterilisation for shelf-stable foods require retort packaging. The aluminium typically used in most solutions has been substituted with an innovative high-barrier film that keeps temperatures high and maintains short processing times during the retort process. The new mono-material retort packaging is fully recyclable, offering a solution that protects the product, provides exceptional shelf life for a mono-material solution and reduces potential food waste.

### **THAILAND**

### 3M BACK TO SCHOOL P.O.P

Company: Thai Containers Group Co.,Ltd. (Head Office)

Category: Point of Sale

3M Back to School P.O.P (Point of purchase) takes this inspiration from colorful school geometric shapes. The P.O.P. made from paper that recycling-friendly and made easy to assemble, disassemble, store, or transport. It can be strategically placed to be seen or interacted with from all angles. It can sell as many types of products as possible and provides the perfect product arrangement. This P.O.P. also deliver merchandising message to customers and encouraging the customer to walk around so the parents and children can select the stationary together.



### **Moon Box**

Company: Thai Containers Group Co.,Ltd. (Head Office) Category: Luxury



Moon Festival is an important traditional festival in Chinese which family gathers to eat mooncakes and watch the moon, symbol of harmony and unity. Inspired by the changes of the moon phase cycle and family reunion, circular concept is used as a core of this mooncake packaging. The box has circular mechanic plate that allows customers to change the sky scenes which aim to bring out impression of creative fun. In addition, the box can be reused to keep things after mooncake run out.

The idea of homeland is encapsulated in the Chinese-style window illustration to depict moment of family eating mooncake while watching the moon through window together. The package is designed in luxurious purple theme which was hard to produce and it's an expensive color in the past, combined with full color printing, spot uv and gold stamp to made it as a special gift for special one.

### Re-PD Cap

Company: MIKASA INDUSTRY CO., LTD. MIKASA (THAILAND) CO., LTD.

Category: Beverages

This stylish plastic cap fit to beverage or seasoning that is used separate a several times such as alcohol drink and liquid seasoning. It is easy to use this cap, you can peel off the tamper evident at the safety because of plastic materials — no risk of inflicting injury to your finger or nail. This cap can be re-closed by simple way but keeping the content firmly in the bottle by good designs. Also this cap has vent function, if gas is generated in the bottle it is passed out through the air vent to avoid the cap popping out.





### Simindja Olive Oil Company

Company: Simindja Olive Oil Pillar

Category: Food

Our Roman Pillars are majestic and lofty, they embody the whole story of our brand. Henchir Simindja; the land of our olives was born during the Roman era in Tunisia and is home to the ruins of one of the oldest oil mills in the world. The exceptional packaging 100% handmade is enfolding an outstanding olive oil with a memorable taste.



### **Gift box Honey**

Company: Ghassen Wood Pack Category: Gift Packaging

Our packaging is 100% eco-friendly with only recycled, recyclable, biodegradable and reusable material:

- Paper material is unbleached, food safe, recycled and recyclable
- All plastic shrink and pocket films are biodegradable.
- Recyclable tea box and tea pouches can be reused as tissue boxes and herb storage pouches.
- 100% natural herbs in hand-sewed unbleached cotton tea bags hanging on bay sticks
- Handmade, glued and packaged by rural women and people with speech and hearing disabilities

### Molded palettes

Company: Ecopalme Category: Transit

It is one of a kind we include palm leaves in our production, The product is robust, reliable, Ispm15 complient, 100% locally made no need to import raw material, Ecofreindly and sustainable



### TURKEY



### **MONO PE- 100% RECYCLABLE- DOYPACK PACKAGING**

Company: Etapak Baskı Ambalaj San. ve Tic. A.S Category: Food

MONO PE- 100% RECYCLABLE- DOYPACK PACKAGING

Polietilen is used into two layers of standing packaging consisting of MDOPE and High Barrier PE structure. The product can be seen in the windowed design with partial appearance paper lacquer. This product has high barrier speciality, mono materail and it can be 100% PE recyclable.

### **Egg Bag**

Company: Onurcan Ambalaj Category: Food

Egg Bag is innovative viol design produced by only corrugated board. Its own special design doesn't need an outer box therefore it provides 30% of cost saving compared to standard viol and 45% inventory advantage on each pallet. Egg Bag can be shipped on any surface and offers 100% printing area which gives additional marketing advantage for the customer. It improves the unit packaging cost of one egg up to 70%. Its own unique design allows multiple sized eggs to be shipped in only one viol therefore it is advantageous through all supply chain process of the manufacturer. When Egg Bag is adapted with  $machine\ automation, it\ provides\ additional\ cost\ advantage\ of\ up\ to\ 35\%\ for\ the\ manufacturer.\ Its\ own\ unique$ design allows multiple sized eggs to be shipped in only one viol. Its special lock systems eliminates the need for packaging tape and makes itself 100% recyclable solution that





### Folding Cylinder Cardboard Box Design

Company: Harman Ambalaj San Tic AS

Category: Food

Boundries of folding box design has been pushed to the limits for this box to enable a cylindirical design. The design provides a unique look on the shelf with 360° visibility but delivered flat and folded to the customer. Due to its flat folded design, the transport and warehouse costs are minimized by the space efficiency. Furthermore all surfaces of the pack is customizable to deliver an attractive presence on the shelf.

Finally, the package is made totally of cardboard suitable for fridge applications to maintain rigidity and ensure a safe journey to the customer. As the package is made %100 by paper, the package continues its journey in paper recycle streams without any waste.

The customized design of this package has been made through standard folder gluer machines without requiring extra investments for both customer and producer.





### **Safe Carrier**

Company: Onurcan Ambalaj

Category: Transit

Safe Carrier is 100% recyclable and non-EPS packaging solution customised for bicycle industry. Safe Carrier eliminates the use of difficult-to-recycle expanded polystyrene (EPS) foam inserts in bicycle shipments therefore it take up 75% less space in inventory compared to previous material. Safe carrier, which is made of corrugated board, allows 300% more goods to be shipped per pallet. The fit-for-purpose packaging design with more fine structure than previous packaging product allows 25% more goods to be stacked on each pallet and also provides cost reducing by 12% in the outer box. Safe Carrier meets the demand of customer's sustainable packaging solutions for green world and also provides cost and operational efficiency through all supply chain process.

### **JACK DANIEL'S 90° TIN**

Company: TEKSAN TIN HOUSE

Category: Luxury

The reason this Jack Daniel's square tin is called a tin is because it is made out of tinplate. Other than that almost none of the processes that were used are used in traditional can-making. Forming the 90° sharp corners instead of traditional rounded ones, curling those sharp corners to seam the hidden bottom onto the body, making the inner slip hinged lid that is also hidden and doing all of these on a tin with a black background required special processes that were innovative and also gentle enough to prevent scratching.

Visually speaking the sharp corners combined with the hidden lid and bottom allowed the design to continue from top to bottom creating a luxurious look while the partial metallic printing with the use of both embossing and not so common debossing enabled this unique tin to be pleasing not only to the eye but to the touch.





### **NoTamperBox**

Company: Mondi

Category: E-Commerce

No TamperBox is an alternative plastic e-commerce bags and standart cases; designed to prevent product theft and maintain

product security during shipment.

NoTamperBox provides operational convenience and speed with its easy box installation, filling and tape closure. While it protects against theft with edge locks, provides product safety with its easy wrap-aroud structure, which encourages the use of smaller boxes to minimize the void space inside the box. High box protection ensures, Preventing returns due to damaged packages, and also terminates theft and breakage of goods inside the box.

In order to provide maximum sustainability by decreasing material usage, There are 2 different versions:

-For Smaller Deci's, NoTamperBox\_Eco, saves material.

-For larger Deci's, NoTamperBox\_Ultra, provides ultra tamperproofness

NoTamperBox offers a good unboxing experience that provides end-consumer satisfaction and brand reliability. Easy disposal and the absence of outbound tapes facilitates recyclability. NoTamperBox is curbside recyclable.

### 100% Recycled (rPET) Packaging Suitable for into Contact with Food Produced from 100% Recycled (rPET) Resin Produced By Chemical Depolymerization Method from Pet Bottle Flakes in Contact with Food

Company: Meltem Kimya ve Tekstil Sanayi İthalat İhracat ve Ticaret A.Ş.

Category: Packaging Materials and Components

Category. Fackaging in Materials and Confipulerits

As Meltem Kimya, we are the only company in the world that produces rPET suitable for contact with food, since 2014, with the chemical depolymerization method, due to its unique infrastructure, high technology and know-how. With this project, we have ensured the direct reuse of plastics as a new product with the Chemical recycling method. We are aware that Infinite Recyclability is very important for future technologies based on plastics and we are aware of the importance of using these valuable materials as efficiently as possible. With this project, we not only ensure the endless cycle of plastic by chemical recycling, but also make the recycling of plastic more sustainable and we say "one bottle of one breath". As Meltem Kimya, we are the only company in the world that produces rPET suitable for contact with food, since 2014, with the chemical depolymerization method, due to its unique infrastructure, high technology and know-how. With the chemical depolymerization method, toxic substances (such as acetaldehyde, linanol, limonene, benzene) are completely removed in the production of rPET. The chemical recycling method is the partial or complete conversion of PET molecules to their monomers by chemical means, and we produce with a recycle policy from bottle to bottle. Our project has been implemented in line with our goal of sustainable production by recycling the wastes generated in our country as well as in the world, contributing to the circular economy, reducing the consumption of fossil resources and carbon emissions.





### **Elif High Barrier Mono PE Pouch Solution**

Company: Elif Plastik Ambalaj San. ve Tic. A.Ş

Category: Food

This solution is a recyclable high-barrier mono PE pouch printed with environmentally friendly Electron Beam technology, which offers proven recyclability and reduced carbon footprint. It provides a EVOH free high barrier solution. The packaging can be mechanically and chemically recycled where the relevant recycling streams exists.

Our most recent innovation in mono-material pouches: A recyclable high-barrier mono PE pouch project using EB printed recyclable packaging,

Our most recent innovation in mono-material pouches: A recyclable high-barrier mono PE pouch project using EB printed recyclable packaging, developed in collaboration with Sun Chemical. The project uses solvent-less printing technology and allows us to replace reverse print and lamination by surface print with in-line EV varnish. With this, we are able to reduce energy consumption and carbon emissions not only during production but also during the printing process as well. In addition, thanks to the reduced layers of the packaging we use less material during production. • Offers a 100% recyclable packaging solution for the FMCG industry • Provides a proven recyclability and reduced carbon footprint helping to satisfy tightening circular economy legislation. • Certified by Interseroh with a grade of 'very good 19/20' • Provides EVOH free high barrier solution with OTR less than 2.0 (23°C, 0% rH, g/m2'day))



### **KORORCY Recyclable Flat Bottom Coffee Pouch**

Company: Korozo Ambalaj San ve Tic. A.Ş.

Category: Beverages

KORORCY recyclable flat bottom coffee pouch is one of the latest innovations from our KORORCY development program for PE-based mono-material flexible packaging solutions. Korozo, with its extensive experience in manufacturing coffee packaging for the most demanding companies and consumers around the world, has a wide range of packaging structures bringing coffee to the final consumer while it retains all its strength and flavor. The innovative flat bottom pouch structure finds increased use in applications from coffee to all instant beverages. The novel pouch design provides improved protection as well as shelf appeal thanks to its 3D shape, matt finish and multiple panels for branding. It can incorporate features such as valve options, easy opening with zipper & tear notch. And now, Korozo adds recyclability to this list of features.

### **EasyTray**

Company: Mondi

Category: Fresh Fruits and Vegetables

Easy Tray is a packaging designed as an alternative to the PS Plastic trays. Easy Tray, is very easy to install and facilitates bothk manuel and automated filling lines. Easy Tray aims to lead the rising small portion trend in the field of sustainability. Supporting the prolongation of the shelf life of products, Easy Tray not only reduces packaging waste, but also supports the circular economy by preventing food waste.

Advantages of Easy Tray compared to other solutions in the market;

- Material advantage (compared to other paper products)
- Energy saving in production (compared to plastic products)
- Quick installation
- Cost advantage
- Recycling possibility / environmental friendly





### ElifPCR - A Sustainable Post-Consumer Packaging Solution

Company: Elif Plastik Ambalaj San. ve Tic. A.Ş

Category: Health and Personal Care

Elif has successfully produced 50% post-consumer recycled content containing PE bags for feminine care products. ElifPCR reduces the need for new fossil-based plastics and protects the environment. Over 25% less greenhouse/carbon gas emissions than virgin resins. ElifPCR's raw material has been produced in EuCertplast certificated production facility. ElifPCR is an eco-cyclic packaging solution that contains high-quality post-consumer recycled materials recovered from commercial, industrial, and household waste. • ElifPCR's raw material has been produced in EuCertplast certificated production facility. • Reduces the need for new fossil-based plastics and protects the environment. • Less environmental impact than virgin plastic materials. • Over 25% less greenhouse/carbon gas emissions than virgin resins. • Reduced CO2 emission and energy consumption. • Contribute to a circular economy by utilizing recycled material in the circle again. • Quality is comparable to virgin-grade products. • Upto 50% post-consumer recycled material containing packaging structures for the hygienic product category. • Thin material structure of 30 microns without compromising film performance, material quality or visual appearance.

### **Multi Box**

Company: Onurcan Ambalaj

Category: Transit

Multi Box provides sustainable packaging solution which is made of 100% recyclable corrugated board.

Multi Box is a multi-dimensional box which can range between small, medium and large. It provides different supply chain solutions due to its multi-dimensional flexibility such as cost reduction in logistics by 50% planning in minimum order quantity and efficient storage conditions in inventory.

The strength and resistance of Multibox is increased by 20% and 40% in medium and small box, respectively.

Multi Box can be adaptable with feature of easy to fold for any industries which has many products with different sizes therefore it gives operational efficiency in MOQ requirements.





### **Spouted Pouch**

Company: Korozo Ambalaj San ve Tic. A.Ş.

Category: Household

This flexible packaging solution is not only refillable but it also provides enhanced visibility highlighting desired areas of the product with partial matt-lacquer application. Spout caps, which are normally commonly produced in white only, have been produced in black exclusively for this product. For the first time in Turkey, Korozo applied a black spout cap on a product, which has a tamper evident feature as in water bottles. The product has become more elegant this way and stands out on shelves as the design improves the brand value. The gilded brand name printed using state-of-the-art technology and special inks contributes to brand recognition. With its rounded comers and user-friendly structure, the product does not cut or damage other materials during transport or travel. It reduces plastic consumption by 78% thanks to its environmentally friendly and refillable design.



### **SUPEX 2011 ALG**

Company: Süper Film Ambalaj Sanayi ve Ticaret Anonim Şirketi

Category: Packaging Materials and Components

Chemosvit Folie has developed sustainable solution of toilet paper packaging. The pure PE structure Algae is about to change the World of Plastics. Our pack transforms algae into plastic, a whole new dimension in packaging. We use resins derived from green algae. Our pack provides an answer to two global environmental problems; using green macro-algae, if not collected and valorized, their proliferation is becoming a global issue in terms of environmental pollution, as well as limiting the use of fossil resources and instead providing an alternative bio-based and recyclable packaging film. Our new packaging film SUPEX 2011 ALG-33 mic can be recycled with PP-based structures and therefore can be used in circular packaging design. In addition, our new film exhibits similar characteristics as standard BOPP structures while the use of fossil sources is reduced significantly.

Our Algae based BOPP film has several advantages: - Reduction in the use of fossil-based raw materials thanks to its

Our Algae based BOPP film has several advantages: - Reduction in the use of fossil-based raw materials thanks to its biopolymer content and thus helping for restoration of natural sources. - Reducing our carbon footprint - Recyclable, thus integrated into circular economy - Reduction of toxic emissions - Reduction of green algae proliferation that is becoming a global issue for environmental pollution - This new film does also not have a negative effect on the food chain, since it is obtained from green algae sources.

### **UKRAINE**

### Cosmetic bottle «Frost»

Company: Group of companies PackGroup Category: Health and Personal Care

The bottle is produced of high-quality PET materials on modern equipment under technical control.

The 200 ml capacity and neck size of international standards DIN 24/410 make it possible to assemble it with various types of accessories and use it for cosmetics of different purposes. Due to additional impurities to raw materials, the bottle has a special design – freeze effect (frosted), which provides it with a more pronounced aesthetic. The bottle is designed to provide convenience and a maximum effective area for individual branding and decoration of the bottle.

Advantages: complete with a large number of accessories which is a ready-made solution for designing cosmetic products; produced with high-quality raw materials; solid; light; convenient for transportation; resistant to external factors; it's possible to manufacture with different degrees of frosted.





### Packaging with an isothermal container

Company: Limited liability company «Production and trade company Polymercenter» Category: Transit

The packaging is intended for medicines, warm and chilled food (catering), frozen products or semi-finished products. The package consists of two containers that complement each other functionally, and are used separately if necessary. The external rigid container, made of impact-resistant polypropylene, protects against damage, moisture, dirt, is easy to carry and transport, has the possibility of sealing and labeling. Internal isothermal container - provides insulation from the ingress of heat or cold, smooths out various temperature fluctuations during transportation, keeps products hot or cold, maintains sub-zero temperature when cold or dry ice is placed in the middle of batteries. The packaging is safe in contact with products and is easy to clean.

### Double-wall cup for hot drinks

Company: Univest Marketing Company

Category: Beverages

Double-wall cup for hot drinks is produced from quality certified materials

It is created due to unique technology with the use of cellulose cardboard with long fibers for the second ball. So, the temperature of arms lasts longer and the drink does not heat hands while holding a cup with hot drink. The technological process allows to fulfill any wish of the customer. We reconstructed the starry sky, highlighting the synergies through a process of metallization, individual embossing and heterogeneous texture. The cup is pleasant to the touch and attractive. Externally. Such stylish presentation of the drink is an advantage for catering and increases sales of drinks in the cold season. The glass is easy to recycle.









non-profit organization, fo<mark>unded</mark> in 1997, which brought together manufacturers and consumers of packaging materials and equipment, containers and packaging in Ukraine.

PARTICIPES – manufacturers of polymer, metal, glass and cardboard packaging, machine-building enterprises, universities and research institutes, advertising, publishing and commercial firms, exhibition centers.

MISSION – unite manufacturers and consumers of packaging to solve strategic and urgent problems of development of the packaging industry of Ukraine.

TARGET – through various information activities to provide representatives of the packaging industry with informational materials to increase the production and export of modern, high-quality packaging.



Member of the World Packaging Organization (WPO) since 1998

### **ACTIVITY:**

- holding conferences, symposiums, seminars, discussion panel, business meetings;
- providing information on equipment, packaging, materials and their manufacturers;
- training, retraining and internship of specialists in the field of packaging;
- publication of special literature, catalogues and magazine «Packaging»;
- conducting marketing, consulting and analytical research;
- international cooperation.

Since 1999, the Club Packagers of Ukraine has been organizing the main packaging events – the competitions UKRAINIAN PACKAGING STAR, UKRAINIAN LABEL and PACKAGING OF THE FUTURE and providing awards the winners

24 competition 288 companies 1890 entries 414 winners









**TARGET** – development of innovations, technologies and packaging design

### LockCon Test Kit

Company: Graphic Packaging International

Category: Medical and Pharmaceutical

The packaging for LockCon AG is especially developed for blood and urine samples in sports and therefore was designed to meet the strictest security levels. The 100% cartonboard box combines several security features and various perforations with an intelligent structural design, meaning it is impossible to tamper with the kit without leaving evidence. However, the removal of the bottles on the inside to take the samples is convenient. An integrated inlay holds the bottles in place while still allowing for simple removal and replacement. After secure closure of the box, all components can be safely transported to the laboratory. Together with LockCon AG, the development team at Graphic Packaging's St. Gallen, Switzerland, facility developed a tamper-proof testing kit that cannot be manipulated and still offers convenience to end users. Several tests were conducted to proof the stability and reliability of this solution during the long development process. In professional sports, including horse racing, regular blood and urine testing is required. When handling these samples, testing bodies need to be able to rely on the integrity of the samples they use. Manipulation of any kind can have serious legal and reputational consequences, meaning heightened security measures are needed on test packs. This tamper-proof testing kit is developed to carry sensitive samples safely while displaying clear evidence of any attempt to access or manipulate the pack. The high level of security is achieved via the layering of various security features and clever structural design. A tamper evident label, double bottom and double safety lock, tear perforation and grid perforation all work together to protect the pack from tampering. Additionally, all components of the packaging are made of cartonboard and are fully recyclable, which enables a responsible disposal afterwards.



### **USA**



### **Anis Mono Dulce**

Company: Berlin Packaging, Grupo Berro

Category: Beverages

To celebrate their 150th anniversary, Anis Mono Dulce wanted to create a limited-edition luxury package as iconic as the brand itself. They partnered with Berlin Packaging to bring their vision to life with custom packaging unlike anything seen before. The stunning decanter-style glass bottle was inspired by the brand's connections to both art and nature. Dynamic, sinuous lines swirl around the bottle simulating the movement of water. The design's modernist style is representative of the architecture of the 1870s when the brand was founded. The elegant bottle embodies the brand's enduring values of quality, prestige, and tradition. And with only 3000 produced, it is sure to become a collector's item. Anis Mono Dulce is a classic among classics. A staple at Spanish dinner tables during holiday celebrations, this anise liqueur was created to be shared and enjoyed with friends and family. Founded in 1870 by Jose and Vincente Bosch, the quality and legacy of the brand have endured for a century and a half.

### **New Seasons PaperSeal® Tray for Fresh Pasta**

Company: Graphic Packaging International

Category: Food

New Seasons transitioned their store brand fresh pasta items from a rigid clear plastic clamshell with paperboard sleeve to GPI's new PaperSeal® sustainable tray packaging format. The MAP tray is made from paperboard and is lined and lidded with clear film that is easily removed by the consumer so they simply recycle the tray with other household recyclables. The tray is printed with brand graphics outside and recycling/disposal instructions inside which become visible after the product is removed. The new package reduces overall plastic usage in the package by 91% and eliminates 120,000 plastic packs from entering waste streams each year. Due to its continuous flange and effective sealing, PaperSeal® increases product shelf life from 12 to 20 days, significantly reducing food waste. PaperSeal® trays and be delivered flat for forming and filling by the customer or can be pre-formed by GPI on equipment developed with Partner G.Mondini. As New Seasons states on their website story about the new package "Reducing packaging waste and reducing food waste? Now, that's a win-win!". The PaperSeal® trays are printed on virgin carton board, cut, formed and lined at GPI's facility in Santander, Spain. They are then shipped to North America, where they are filled at one of two co-packer facilities and are sealed using a PFAS-free film. GPI's PaperSeal® utilizes an inventive structure to create a one-piece continuous sealing flange around the edge of the tray. Because of this continuous flange, the lining film and the lidding film (applied after filling) are are able to achieve a hermetic seal to prevent leaking in MAP and VSP packs, while providing excellent product protection and preservation. The production of PaperSeal® trays produces 60% less greenhouse gas while using 69% less energy than it takes to make plastic barrier trays.





### Colgate Keep Toothbrush

Company: Colgate Palmolive

Category: Health and Personal Care

Colgate Keep is Manual Toothbrushes reimagined: engaging, personalized and sustainable. The whole objective behind the launch was to solve the compromise consumers face when choosing sustainable options: sustainability over performance and experience. The new replaceable head Colgate Keep brush delivers great usage experience in terms of mouthfeel and performance, whilst leveraging premium durable materials (aluminum) meant to last for 80% plastic without the compromise. Moreover, it comes in a 100% paper-based packaging, fully recyclable and made with 60% recycled content, including biodegradable sugar cane and wood fiber, and a new graphic design that helps the consumer experience and see brush heads without the need for plastic windows.

Keep introduces a first-of-its-kind product into the manual toothbrush space, designed with both consumers and the environment in mind - a reusable, aluminum-handle brush that reduces 80% of the plastic waste standard toothbrushes produce. The aluminum handle was engineered to maintain ergonomics and the brushing experience consumers are accustomed to today, maintaining familiarity while also eliminating plastic waste. Keep also comes packaged in a recyclable, all-paper structure, featuring a molded pulp tray made from biodegradable sugarcane + wood fiber, making it one of the most sustainably friendly toothbrush products in the market. The package can now be dispensed easily by the consumer into the paper recycling stream, eliminating the need to separate the plastic blister from the backercard normally. On the back of the pack, a QR code guides consumers to learn more about the ecological impacts that the Keep brush + pack make.

### Amcor HealthCare™ AmSky™ Blister System

Company: Amcor

Category: Health and Personal Care, medical and pharmaceutical

Amcor's AmSky™ Recycle Ready consumer healthcare blister package offers a sustainable alternative to a 50-year-old package technology that is one of the least sustainable consumer packages. Current consumer health blister packages use PVC, which is defined by the U.S. Plastics Pact and many other sustainability-oriented organizations as a Problematic and Unnecessary Material'. In addition, current packages have a thick layer of aluminum foil welded to the PVC exasperating any opportunity for recycling. AmSky is formulated using HDPE, one of the most recycled plastics in the world and is designed to drop into existing blister packaging applications. AmSky™ has been designed as a no-compromise alternative for use in the packaging of over-the-counter medications and dietary supplements. Amcor received Critical Guidance Recognition for the AmSky™ blister package from the US based Association of Plastics Recyclers and a very favorable 87% recyclability rating for polyethylene from the Institute cyclos – HTP in Germany.

from the US based Association of Plastics Hecyclers and a very lavorable of 75 recyclability rating for polyentylene month to be installed explose. The installed explose in the installed explose AmSky™ Blister System delivers industry leading moisture barrier for a mono-material product. Amcor's AmSky™ Blister System delivers barrier protection equivalent to both PVdC coated PVC as well as some Aclar® PVC laminates. Consumer health companies are able to eliminate PVC, PVdC, and in some cases Aclar from their packaging materials and move to a mono-material option.







### Recyclable Mono-Material Pump - Future from Aptar Beauty + Home & Dermalogica

Company: Aptar Beauty

Category: Packaging Materials and Components

Aptar has proudly collaborated with Dermalogica, to be the first prestige skincare brand to launch their cleansing line using Aptar's fully recyclable mono-material pump, Future. Dermalogica has integrated this innovative Aptar solution for their cleansing range. In developing the concept for Future, Aptar's experts turned to design principles that help reduce the environmental footprint of the product, including development of mono-material packaging. Traditional pumps may contain different materials, including metal components that may impact the recycling process. Future is made from Polyethylene (PE) only, which aligns with the most common materials used to make bottles – PE and Polyethylene Terephthalate (PET) and consists of a plastic spring. By combining Future with a fully PE Bottle (made of 50% PCR), Dermalogica is able to deliver a fully-recyclable package with no need for separation. The integration of 50% PCR furthers its circularity contributions.

Another important feature of the Future pump's innovative design is an incorporated, easy-to-use on/off locking system and a 360° degree actuator.

Another important feature of the Future pump's innovative design is an incorporated, easy-to-use on/off locking system and a 360° degree actuator. This prevents the pump from leaking while in transit shipment, and on-the-go. Dermalogica's professional beauty team will also be able to leverage this feature while traveling for educational events. The 360° degree rotator allows to freely orient the actuator. Brands can choose from several different ring colors for customization. This modern take on closure design also renders Future compliant with the rigorous Amazon ISTA 6 protocol. Designed for e-commerce, Future's ISTA 6 compliance ensures that the pump withstands the risks associated with transport and distribution network pressures as well as necessitates less protective carton and paper packaging. The pumps unique look creates shelf differentiation and gives Dermalogica the opportunity to have consumers explore the product to see why the pump is different and how it enhances the user experience

### **Repeat Refillable Airless**

Company: FusionPKG

Category: Health and Personal Care

Welcome to a packaging utopia, where recyclability meets a consumer-first, airless refill experience. All-new Repeat, our latest patent-pending innovation, is a refillable airless unicorn. Unlike any other refillable airless pump on the market, Repeat's Airless-One™ 100% polyolefin monomaterial pump engine is thoughtfully integrated into its refill cartridge, allowing users to refill the product without exposing the formula to air and providing users with a fresh pump engine at every refill to ensure the package never loses its powerful pump. With a locking mechanism that satisfyingly clicks into place to indicate the pump is fully engaged, this refill process is a snap! Designed for recycling compatibility with next-gen airless technology, Repeat is designed to promote a circular economy with refillable features, recycling compatibility, and PCR solutions. It is available with up to 50% PCR. Repeat Refillable Airless incorporates all three approaches to sustainability: Reduce, Reuse and Recycle. Now that's a REFILL-ution! We carefully considered the entire life cycle of the package. We wanted both the reusable, outer and refillable, inner parts of the package to be designed for recycling. Whether a consumer decides to reuse the product and purchase a refill or stops using the product and discard the entire package, both the inner and outer components can be recycled. An industry first, Repeat features a PP refill cartridge and a PET reusable outer that are both designed for recycling. Marrying sleek design and flawless engineering, Repeat features industry-best airless technology to minimize formula waste with evacuation rates near 100%, provide precises and consistent dosing with an advanced delivery system, preserve the integrity of formulas with airless protection, and offer contactless delivery to prevent cross-contamination. Our Airless-One™ pump engine with an all-plastic spring is also certified by The Association of Plastic Recyclers (APR) with Meets Preferred Guidance Recognition.









## Nexrier® - Eco-friendly packaging materials with high oxygen barrier properties based on protein

Company: EVERCHEMTECH

Country: South Korea

Nexrier® is an eco-friendly gas-blocking biodegradable barrier material that is made from protein-derived by-products such as milk and cheese.

This proprietary technology of Evercamtech not only can be applied to paper and biodegradable materials (PLA, PBAT, PGA, etc.) but also to other substrates such as OPP, BOPE, MOPE, etc. to manufacture high-barrier packaging materials with excellent recyclability.

Not only Nexrier® can be applied to food packaging that maintains freshness, but also to laminate tubes of cosmetics and household products, replacing conventional Al deposition or EVOH, which is currently used. In addition, it is an eco-friendly packaging material that can be applied to facial masks, face masks, and pharmaceutical packaging.

The figures related to eco-friendliness, packaging efficiency, and high functionality of Nexrier® compared to existing materials are as follows. 1. [REUSE]coating material using natural protein by-products, that is renewable raw materials. 2. [RECYCLE]According to the KCL(Korea-related institution) evaluation results, Nexrier® has excellent blocking properties, hence no need to use film with multi-layer. Films with Nexrier® are proved to be treated as "mono-material(single component material)" and evaluated as 'Excellent' in the evaluation of the packaging structure. 3. [REDUCE]EVOH needs to have at least a thickness of 12um to 50um to maintain high performance as a gas barrier, but Nexrier® can reach the same physical properties even with a thickness of 1~3um. 4. The environmental hazard assessment results 1) No hazardous substances were generated during REACH and FDA tests. 2) 96.3% reduction in LCL environmental impact assessment (resource depletion, global warming, etc.). 5. Certified Korean Green Technology Products confirmed as Green Technology.







#### AirWave PaperWave Bio air cushions

Company: Flöter Verpackungs-Service GmbH Country: Germany

PaperWave Bio are FSC® (C162510) certified air cushion fillers and wrapper made from 100% recycled paper. Since the air cushions are only produced at the packing station, additional energy expenditure and CO2 emissions are already saved during transport. The packaging consists of only 5 percent material and 95 percent air. When disposing of it, the consumer clearly recognises that it is paper (visually, haptically, PAP22). Should anything accidentally end up in the sea, PaperWave decomposes without leaving any residue after less than 90 days.

PaperWave is the only certified transport protection in the form of air cushions on the market and is being demanded and used by more and more sustainably-minded eCommerce customers. In addition to the AirWave Bio and AirWave ClimaFilm, FLOETER is also making a further contribution to sustainability in shipping with the PaperWave air cushions. FLOETER offers the PaperWave air cushions as chains and mats for the air cushioning machines AirWave 1 and 2 as well as AirBoy nano3 and 4. Summary - Material savings (0.9 kg air cushion instead of 11kg crumpled paper / m3) - Production in Germany - Energy saving approx. 70% - Reduction of the CO2 footprint compared to crinkle paper 80%. - 95% air, only 5% material content and this is compostable - Made from 100% recycled FSC® (C162510) certified paper - >80% renewable raw materials - 100% recyclable - FSC (C16105) certified - certified by Papiertechnische Zentrum München for alternative disposal in waste paper and thus labelled PAP22 - all components are home compostable certified by TUEV Austria





#### Coca-Cola Label-Free PET Bottle

Company: Coca-Cola Tokyo Research & Development Company, Limited Country: Japan

Our iconic Coca-Cola contour bottle was launched in 1915 with the concept of being recognized even if it was shattered or touched in the dark. The new Coca-Cola contour has evolved from this tradition by adding an element of "sustainability" with label-free feature. Also, the PET bottle is made from 100% recycled PET and the weight has been reduced by 2g. The product is drinkable size of 350ml, mainly at e-commerce channel.

By removing a label, the PET bottle doesn't require a flat area to roll a label, which gives us more bottle design flexibility. It reproduces the unique curved shape of the traditional contour bottle, and the Coca-Cola spencer logo is dynamically placed for bolder band appeal. The logo visibility is enhanced by utilizing mold technology. We achieved to develop the next-generation PET bottle having brand equity and sustainability.









#### LifeSpan Copper Based Film

Company: Amcor Chile - Copperprotek Country: Chile

Amcor Flexibles Chile created an unique and high quality packaging solution with LifeSpan™ Copper Based Film. It is an innovative and disruptive packaging solution for cheese or fresh or processed meat such as ham, bacon, fresh chicken, etc... thanks to its specific addition of copper particles in the manufacturing process of the packaging solution. LifeSpan™ Copper Based Film, a laminate, contains copper microparticles that inhibit the development od microorganisms inside the packaging, allowing to increase the shelf life of product packed up to 250%. The material was recently created through a collaboration between our Amcor Flexibles Chile and biomaterial technology company CopperProtek. The partnership aimed to discover whether antimicrobial qualities could be transferred to plastic packaging by adding copper microparticles to the plastic resin in the film production, extended the shelf-life of fresh food products.

LifeSpan<sup>™</sup> Copper Based Film is a smart packaging material that retained the antimicrobial properties of copper. The packaging solution fights the development of bacteria and fungus inside the packaging and therefore extends the shelf life of enclosed fresh products significantly, up to 250%.







#### **ThermoShield Temperature Monitoring System**

Company: Caps & Closures

#### Country: Australia & New Zealand

ThermoShield integrates colour thermochromic technology into the product packaging, which dynamically changes its colour appearance serving as an optical system at a pre-selected temperature switching point without changing or affecting the quality and integrity of the packaging and its performance. See how ThermoShield works (https://youtu.be/-prNtSfa7UM).

ThermoShield's unique colour-switching functionality provides a simple yet effective visual monitoring system and acts as a safeguard across the cold chain. Food, beverage, medication, and other applications where excessively high or low temperatures and time will degrade the contents. Immediate rectification actions can be taken and prevent wastage. See ThermoShield's colour reference chart (https://www.capsandclosures.com.au/thermoshield/).

ThermoShield also provides a creative platform for designers to incorporate brand ideas that would increase brand value and boost consumer confidence in the quality of the product.

Sustainability-wise, ThermoShield packaging supports sustainability through waste reduction, is recyclable like conventional plastic, and the material is BPA-free which doesn't affect the packaging contents.

Beverage, food, and pharmaceutical freshness degradation in transit is well documented and a major contributing cause to our alchal workson events.

which doesn't affect the packaging contents.

Beverage, food, and pharmaceutical freshness degradation in transit is well documented and a major contributing cause to our global wastage problem. ThermoShield is developed to be a crucial cold chain safeguard across refrigerated production, storage and distribution activities by visually identifying when a product is not within the correct storage temperature range. ThermoShield allows accountability through visual temperature tracing that can help identify and improve the weak link in the supply chain network, maximising the product life and availability of food and medication to the consumer. Moreover, ThermoShield integrates as part of the packaging material, reducing the need for any additional aid or expensive technology that may require training or not easily scaled. Watch ThermoShield introductory video (https://youtu.be/eKvqPMrwTcA).



#### Modified Atmosphere Technology

Company: Masterpack Group BV

Country: Netherlands

We have developed a complete Modified atmosphere packaging (FIBC). This includes a sensor to measure the oxygen rate, humidity and temperature within the packaging. Through wireless measurements we can see live or at least 4 times a days what are the values within the packaging. This can prevent a lot of food waste for product within the FIBC. All our MA FIBC are made in cleanroom production facilities under BRC, ISO 2200 and GMP conditions to make sure they can be used for direct food contact. And all our materials including the valve come

with food declarations. Even the sensor is designed so that it cannot harm the product in any way.

We have developed a complete product line for MAP. We start with the specific film/ foil we use for our liners, the sealing equipment for sealing the liners, the connecting valve on the liner, machines for vacumizing and degassing of the liner and FIBC and the sensor for measuring the oxygen, humidity and temperature values. This total concept makes it possible to go very low in oxygen and keep those low values. Our modified atmosphere packaging covers multiple aspects of packaging benefits. Not only does it keep your product protected from external influences and pests but it also extends the shelf life, and contributes to a more sustainable supply chain.









#### Sugarcane Pulp Hot and Cold Cup Lids

Company: BioPak

Country: Australia and New Zealand

While environmentally friendly hot and cold paper cups were a packaging product already developed, there was a requirement to complete the story by creating matching, fitting lids for coffee roasters, cafes and QSR situations, like, slurpees and milkshakes.

Bagasse, also known as sugarcane pulp, is a fibrous material left behind in the sugarcane harvesting process. It has a multitude of uses and is a sustainable alternative to conventional plastic packaging. BioPak have released these lids, certified home and industrially-compostable to Australian standards (AS4738/AS5810) and made from plant-based, renewable resources and are PFAS Free.

While many paper-based products can also be composted, the advantage of bagasse is that growing it does not have the same environmental impact as paper, which comes from trees.

We spent a considerable time fixing the bagasse weight/thickness to ensure they hold onto cups firmly with a distinctive snap feel when applied to cups.

firmly with a distinctive snap feel when applied to cups.

Switching from single-use plastic packaging derived from finite fossil resources to sugarcane packaging makes a big difference. if a large QSR swapped out 10 million conventional plastic lids to sugarcane pulp BioCane alternative they could avoid 37,400 kgs of fossil-fuel plastics, offset 83,478 kgs of carbon emissions and if all were composted at home, the organic waste would create 25,900 kgs of nutrient-rich soil which in return sequesters even more carbon from the atmosphere, reversing climate change.





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#### SeaStretch - the first manual Stretch Wrap made of paper Company: RAJA Norway

Country: Norway

Transport packaging. The paper stretch film SeaStretch is an environmentally friendly alternative to traditional plastic stretch film used to wrap and contain loads in shipping and storage. The paper solution is creped, which makes it flexible, stretchable, and highly resistant to tearing. This kraft paper pallet wrap is made from PEFC certified natural kraft. It is ideal for wrapping standard and homogeneous pallet loads up to 200kg. Featuring a sticky inner layer, it provides excellent support for goods during transport and storage in the warehouse, while protecting them from dirt and dust. Fully recyclable, this eco-friendly stretch wrap is a perfect alternative to plastic stretch film and wrap. SeaStretch is produced by Seman Paper Europe GmbH.

Scanstar jury's motivation: Good and innovative product. It's a step further. Brown packaging may reduce damages to the product. Could also

be good for wrapping items, it has a potential for other uses.





#### Mast-Jägermeister #savethenight Edition - Thermochromic screen print on glass bottle

Company: DECO GLAS GmbH, Mast-Jägermeister SE

Country: Germany

Please find more details to the Jägermeister #savethenight concept below.

The Jägermeister bottle "#safethenight edition" was decorated with a screen print. The special feature of this direct print is the use of temperature-sensitive ink. This is the very first time it has been used directly on a glass packaging (in the food and beverage industry). So far temperature-sensitive ink has only been used on paper labels.

By using the thermochromic direct print ink, the product packaging receives an additional use. The Jägermeister branding invites the customer to experience the brand in a new way and at the same time informs when the drink has reached the perfect drinking temperature (in case of Jägermeister: -18°C).

This innovation offers a wide range of design possibilities, as the reaction temperature can be set individually (for example: reacting at approx. 7°C in the fridge).

The #savethenight initiative was launched by Mast-Jägermeister SE in 2020 when nightlife came to a standstill due to the global pandemic. The limited edition was dedicated to those who make nightlife possible. Part of the profit went directly to artists to support them in realising their creative projects. In collaboration with our client Mast-Jägermeister SE, we implemented the packaging concept of this limited edition in 2021. The design of the bottle symbolises the story of #savethenight: The unchilled Jägermeister bottle (with invisible print) shows the shut-down nightlife. As soon as the herbal liqueur inside the bottle has reached the perfect drinking temperature of -18°C in the freezer, the special Jägermeister design appears through the thermochromic effect – symbolising to lit up and bring back the nightlife.







#### Every bird is special - as they are! Yogurt cups' paper-based lids designed by consumers/ end-users

Company: Pyroll Packaging Group Ltd Country: Finland

The individual consumer's voice is getting stronger, and personalization is a huge megatrend. Pyroll Packaging ang PackageMedia created a new interactive way to use Arla's yogurt jars' paper-based lids. This campaign "Every bird is special- as they are!" was built from good things from the idea to production; Consumers could draw their own bird designs and those were published on the gallery website and a big part of those designs were also published on yogurt jars' lids. https://luontopluskampanja.pgm.fi/

Best of all, customers had the chance of going into stores and seeing their very own designs on real-life yogurt jars' paper-based lids of Arla Luonto+ brand. The outcome was groundbreaking: the digital and physical world merged in packaging!

Pyroll Packaging Group combined manufacturing set-up, digital back end, and e-commerce knowledge by PackageMedia and fulfillment services in printing and offered to Arla brand a service for consumers to create something of their own Arla's popular product range. Part of the Arla sales margin was given to the NGO The Mannerheim league of the theory of the development of the Arla's foliadesis delilled the area and additing a paper had a deliling and additing a paper had a deliling a paper of children's friendship skills. Here was a strong sustainability approach by using paper-based lids and adding a new task to those. This campaign had also an incredibly positive impact on the Arla brand.





#### FlowerTea Gift Box

Company: ZRP PRINTING GROUP CO.,LTD / Fuyin Li、Xiaoqin Li、Yuhan Chen、Huilan Liang Country: China

When opening the gift box, the window of the front illustration opens like a love letter, and some emotions you want to express can be customized to help people open their hearts and break through the barriers of expression. This high-end brown sugar flower tea gift box project is used to convey emotions. For emotions, whether it is love, friendship, or family affection, it helps people to break through some barriers to expression.





#### Finger-fitting tab for food can lid

Company: Toyo Seikan Co.,Ltd.

Country: Japan

We have developed a new tab for the easy-opening end of food cans that fits the finger and is easy to open. This tab is not only easy for a person to open, but also has a safety feature that reduces the risk of the lid opening against the person's

intention.

The unique feature of this Finger Fitting Tab is the finger fitting part.

Tabs are sometimes machined in the Z-axis direction to provide a gap for finger hooking(Tip-up).

Our new tab's shape of the tip-up is different conventional tab.

In the conventional tab, the finger fitting portion is curved in an arc in the direction opposite to the rivet when viewed in a plane (convex shape). On the other hand, the finger-fitting tab is curved concave in the direction of the rivet and is shaped to follow the finger.

This Finger Fitting Tab has four advantages. First is improved fingering. The finger-hanging part is concave to fit the fingertip, enabling strong finger-holding with the belly of the finger. And ,the increased contact area reduces pressure on the fingertip, which reduces pain and discomfort. Second is the reduction of the risk of inadvertent opening. The apex of the finger hook is tucked inside the concave shape, reducing the risk of the can's seam band or other parts of the can getting under the tab. This prevents unintentional opening accidents. A final advantage is the guidance of the fingertips. The concave shape of the finger-hanging portion naturally guides the fingertip to the center of the tab. This accessible design prevents the user from placing a finger on the tab from an angle without being aware of it, thereby reducing the risk of unintentional opening







#### **EzyGrip**

Company: Caps & Closures

#### Country: Australia and New Zealand

EzyGrip is developed as we are experiencing a global trend where national populations are ageing, and many consumers suffer reduced hand strength and dexterity. A more accessible and inclusive design is needed to ease limited mobility issues. Our senior population would benefit from a better ergonomic design that makes opening a product more accessible. With its instantly recognisable design, the multi-lobed with a sinusoidal profile substantially reduces grip force and improves leverage while maintaining a comfortable action. This benefit enhances the confidence and independence of people with hand and wrist strength limitations. Technically, EzyGrip is suitable for all circular closures' existing tooling, compatible with seal insertion, and its unique design improves the capping process by eliminating conveyor jamming. EzyGrip doesn't affect child-resistant performance as they don't change the CRC operating principles nor interfere with the tamper-evidence function. All these make manufacturing EzyGrip cost-effective in comparison to conventional designs. Driven by consumer demand for screw caps that are easier to grasp and grip while opening and closing, EzyGrip is specifically beneficial for consumers with limited hand or wrist functional abilities. This is not just a "seniors" condition, but it affects and limits the quality of life for many Australians. The key innovative design feature of EzyGrip is a multi-lobed external profile that provides a grip surface more perpendicular to the fingers than a conventional circular cap. These lobes, plus a revised profile for the raised knurling of the cap's side, enable a substantially reduced grip force for the same opening torque. Grip force is reduced by approximately 19% compared with a conventional 38mm cap. In addition, Ezygrip features a 5% larger diameter on the 38mm cap due to the lobes, giving additional leverage on a diameter basis. Watch our EzyGrip introductory video (https://youtu.be/Nbn7Oi8BXPO).





#### Shio Hitofuri, one-shake ("hitofuri") salt Company: The Salt Industry Center of Japan Country: Japan

Because our pack, "Shio Hitofuri", one-shake salt bottle stops overflow and enables to shake out a small amount of salt (approximately 0.3g) with just one shake. Not only it eliminates the bother of weighing out, it also helps people control their daily intake of salt easily.

By introducing Overflow Prevention Function (patent pending) to the cap for the very first time in the Japanese salt industry, only a little amount of salt comes out from the small mouth at a shake by anyone anytime. The number, size, and position of the holes of this mouth are well considered so that salt will be sprinkled appropriately and effectively over food. In addition to it, another mouth with a large hole is provided for a large amount use, making this bottle perfectly fit any kinds of cuisine.

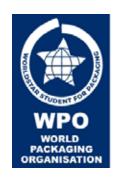


#### **STUDENT WINNERS 2022**

### THE WORLDSTAR STUDENT AWARDS COMPETITION IS OWNED AND PRODUCED BY THE WORLD PACKAGING ORGANISATION

A complete lists of all the winners and certificates awarded for the 2022 awards is available on the WorldStar Student Awards website accessible via the WPO website – www.worldpackaging.org.

WorldStar Student Awards are awarded as follows: the top three (3) overall Gold, Silver and Bronze trophy winners are named as the WorldStar Student Winners and receive WorldStar Student Winner certificates and trophies; they are also invited to the WorldStar Industry Presentations. If you have any queries or require additional information, please contact Bill Marshall, email: secretary@ipsa.org.za





#### GOLD AWARD WINNER (1st overall) • MARKETING APPEAL SILVER AWARD

ENTRY	Sensodyne Mixed		
ENTERED BY	Zeynep Ozel		
EDUCATIONAL INSTITUTION	Istanbul Medipol University	COUNTRY	Turkey
SENSCOVNE  SET STATE OF THE SET O	MIXED	SINSOTTA S	When the spray tip is ground in, it extends out is beingth. To turn it off, it is enough to press it once.  For internolve spraying, a plastic valve with frequent gaveys was used.  Thereofs are bootled on the incide of a before the property was used.  Thereofs are bootled on the incide of the bootled of the cover there is a nocess where the spray will be out.  An accordion system was used to tighthen the paste grabulary first area where the spray will be cut.  An accordion system was used to tighthen the paste grabulary first area where the spray will be cut.  An accordion system was used to tighthen the paste grabulary first area where the spray with a service of the property place solutioned in a fearing such.  An accordion system was used to tighthen the paste grabulary first area when the graph place solution of the paste to be squeezed.

#### PROJECT DESCRIPTION:

Sensodyne Mixed Oral care kit aims to be a packaging design that encourages practical, fastly and oral care by collecting the products that should be used together in a single package. The putty module is provided thanks to the accordion system, which can be removed by pressing from the bottom.

The triple oral care kit designed for the Sensodyne brand has been transformed into a modular, easy-to-carry product with the products needed by the user in a single package. The targeted person was identified as travelling users, users who did not complete their oral care routine due to product crowding. It consists of oral care spray, dental floss and toothpaste modules. The mouth spray module can be adjusted according to request. In this way, the user can fill mouth spray, tongue spray or liquid tooth cleaning products into the packaging and use them for a long life. Dental floss is placed in the cavity located in the cylinder chamber and removed from the hollow channel in the dental floss. The ergonomic sliding system lid design with a protruding surface is made to stop dental floss in a sterile environment. When the user slides the cap, he reaches the floss, cuts the floss with the indentation on the tip and uses it. The putty compartment is unusually designed with a bottom press. The module has an accordion hopper into which the paste will be filled. It provides portion control with a spring-loaded push mechanism. Its production can be produced by injection molding method.



#### SILVER AWARD WINNER (2nd overall) • MARKETING APPEAL GOLD AWARD SUSTAINABILITY BRONZE AWARD

ENTRY	Froot	
ENTERED BY	TEAM: Heather Lopez, Hannah Kraus, Thucmy Dang, Han Wong, Fred Pastrana, Coller Pruyn	
EDUCATIONAL	California Palytechnic State University   COUNTRY   United States	



#### PROJECT DESCRIPTION:

Froot is a packaging system for fruits and vegetables that doubles as a bowl in your home kitchen! Froot is a more sustainable alternative to single-use plastic packaging. It is 100% recyclable, stackable, partable, and reusable. It allows excellent content visibility and offers superior physical protection reducing food waste.

The Froot system is comprised of several carriers with similar geometry and a variety of sizes. The Froot carriers have the following features:

The Froat carriers have the following features: They are made of 100% recyclable materials such as paperboard or micro-corrugated fiberboard, depending on the contents' weight. Their stackable design and integrated handle allow for easy carrying and distribution. The Froat carriers offer more physical protection than typical bags and mesh bags, thus extending fresh produce's shelf life and reducing food waste. The Froat carriers can be reused as bowls on a kitchen countertop or table. The Froat carriers are designed as folding carbons with auto bottoms. They can be shipped flat when empty, thus, improving a hipping efficiency.

empty, thus improving shipping efficiency. The integrated circular windows and fun graphic patterns enhance brand recognition and product appeal at the store.

Froot stands out as a fun and practical fruit carrier that encourages consumers to apt out of single-use plastic packaging.

#### BRONZE AWARD WINNER (3rd overall)

ENTRY	Blister Packaging Design of Pill Splitter and Container  TEAM: Haowei Hu, Guixiang Qin, Jia Xu		
ENTERED BY			
EDUCATIONAL INSTITUTION	Southwest Minzu University	COUNTRY	China



#### PROJECT DESCRIPTION:

By changing the structure of the blister packaging to solve the problem of drug dispensing and storage after dispensing, users do not need to purchase additional dispensers, nor do they need to worry about the storage problems caused by dispensing, which optimizes the user's medication experience.

Nowadays, dividing the pill needs the specific tool. Besides, different separation ways need different devices. However, most tools are not convenient and inability to store divided pill in use. In order to meet the diverse pill splitting and storing demands of isosorbide mononitrate sustained-release tablets, the pill splitter is combined with blister packaging to solve these issues.





#### SAVE FOOD GOLD AWARD • CERTIFICATE OF MERIT

ENTRY	Sankofa Red Gold Eco-pack Stackable Composite Crate		
ENTERED BY	TEAM: Humility Daniello Nyame, Christian Addo Sarfo, Samuella Obuama Aggrey		
EDUCATIONAL INSTITUTION	Kwame Nkrumah University Of Science And Technology Kumasi	COUNTRY	Ghana

The package is a stackable crate made from wood/plastic composite to transport fresh tomatoes. The crate has two inserts to reduce compression stress which causes tomatoes to be crushed. The materials for the package are environmentally friendly; wood component is biodegradable and the plastic component can be recycled.



#### SUSTAINABILITY GOLD AWARD • CERTIFICATE OF MERIT

ENTRY	Marlo Farms Sustainable Vegetable Packaging Solution		
ENTERED BY	Theresa van Staden		
EDUCATIONAL INSTITUTION	Stellersbooch Academy of Design & Photography	COUNTRY	South Africa
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In this environmentally-forward entry, 100% compostable packaging made of moulded mushroom mycelium will house fresh vegetables, negating the need to recycle this packaging while providing a cost-effective solution. This packaging communicates the importance of sustainability, with the tagline, "Farming for the future".

My focus is to create sustainable vegetable packaging for Marla Farms out of mushroom mycelium thats been moulded. This approach was chosen after I realized the problem with the lock of basic infrastructure and manipipality services in Southern African rural farming environments. People from this lower class environment aren't able to recycle. This packaging is 100% compostable and more cost effective and affordable for the customer, than plastic packaging. This type of packaging can make a big sustainable impact on the environment and totally eliminate the use of plastic. To communicate the importance of sustainability through designing compostable vegetable packaging that will make a great impact on the environment. The sargest market is the lower class customer living in the African rural environment, who buys vegetables at convenient stores. The packaging is moulded out of mushroom mycelium. Which means that after its been used and it ends up somewhere in the environment, it is 100% Compostable and does no harm to nature. The windows on the lid makes it possible for the customer to see the fresh vegetables inside, when packed on the shelf. I moulded this packaging out of paperpulp just to get the idea of the real life size and how it will function.





# **CAPTURED MOMENTS FROM WORLDSTAR 2022 AWARD CEREMONY IN MILAN**



























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