# The 10 Winners of the PackTheFuture Award 2020



#### **Albea Services SAS (FRANCE)**

**Innovation: Greenleaf 2** 

The jury's verdict:

« With Greenleaf 2 Albea succeeded in creating a high-barrier laminate tube that is fully recyclable in the rigid HDPE stream. The use of EVOH guarantees protection of the product but does not compromise the recyclability of the packaging. »



Greenleaf 2 is a new generation of Plastic Barrier Laminate (PBL) Tubes that can be recycled in the HDPE rigid stream when collected. The web material features an exceptional barrier, while reducing the sleeve thickness. The tubes provide similar haptics properties than those of thicker materials.

Greenleaf 2 tubes exist in different versions for the Beauty, Personal and Oral Care markets. The barrier is made with EVOH to protect the most demanding formulas from oxygen and water loss, without compromising the recyclability. This packaging has been awarded a "Designed for Recycling" certification with a score of 97% class A++ from SUEZ.circpack among other tests, this packaging offer has passed the Critical Guidance and the bottle-to-bottle tests from the US-based Association of Plastic Recyclers (APR). This offer is available with convenient flip-top and screw caps in PP and PE. The material is available in white and transparent to fulfil the most demanding customers' briefs. It can be decorated in flexographic and digital printing, cold foil, selective varnish. For a higher-end look, Greenleaf 2 is available with Perfectiseam – a nearly invisible and very discreet to the touch side-seam. Green- leaf 2 tubes are a great option to support our customers' targets on sustainability.

## **DUO PLAST AG (GERMANY)**



**Innovation: DUO EARTH 4** 

The jury's verdict:

« Duoplast successfully incorporated at least 25% post-consumer regenerate in its Duo Earth 4 stretch film while keeping the overall thickness to 8  $\mu$ m, without loss of performance. »



High-performance stretch films are of ever increasing importance for securing loads. The opportunities for using reclaimed materials in these films are very limited due to the increased demands on both the processing and the secure stabilisation of pallet units. Imperfections mostly arise in production in films with comparatively thin thicknesses, and this can very easily lead to processing problems.

With its DUO EARTH 4 product, the German stretch film manufacturer DUO PLAST AG is the first to successfully incorporate at least 25% post-consumer regenerate (PCR) into its stretch films without any significant loss in film performance. As a leading innovator in the stretch film sector, the company is therefore setting new bench- marks for using recycled materials in stretch films while still meeting the need for optimum load securing.

DUO EARTH 4 fillm features very cost-effective material thicknesses from 8  $\mu$ m while providing excellent holding forces. The film edge, which is particularly susceptible during use, is protected by the patented DUO DOUBLE EDGE (DDK). The DUO EARTH 4 film is available both as hand and machine stretch film.

# Sidel (FRANCE)

#### **Innovation: AYA**



The jury's verdict:

« AYA from Sidel is a combination of 100 % rPET material and intelligent design for logistics & consumer information. The attached cap completes its holistic sustainability approach. »



- Extremely lightweight (5 g), made of 100% recycled PET
- Snap-on tethered cap
- Label replaced by relief engraving of legal information on the bottle
- Optimization of material distribution in the bottle: blowing with the Base OverStroke System creates complex base shapes with the minimum amount of material
- Lower energy consumption during production (simple shape)
- Secondary packaging

## Alternative 1

Stackable bottles that nest together at the base: the base shape perfectly hugs the cap to ensure stability during pallet storage and transport. Bottles are held together as a layer with a perforated cardboard separator that fits over the necks. The separator size can be adapted to form custom packs adapted to the point of sale. Bottles are stacked after a layer is formed and a separator is placed over them.

## Alternative 2

Bottles can be arranged to optimize storage volume in a case: the bottles' V-shape saves space, since they can be placed top to tail, in a staggered fashion, to best exploit the space and place as many bottles as possible in a given volume.



# Verpa Folie (GERMANY) Innovation: PE based carrier strip

The jury's verdict:

« This new verpalin<sup>®</sup> PE based carrier strap is attached to a PE shrink film and replaces the previous PPpaper composite. It thus helps overcome the key issue of flexible beverage packaging recycling. »



Until now exible beverage packaging (shrink Film with glued-on carrying strap) is treated as non-sortable and therefore as non-recyclable due to its different material composition and non-releasable bonding.

The development of the new carrier strap based on PE in connection with the PE-based shrink film now creates the basis for a uniform holistic packaging solution. Thanks to the uniform material, it can now be clearly sorted and recycled and can thus be used in a resource-saving and environmentally friendly manner in the recycling cycle.



# Mauser (GERMANY)

#### **Innovation : Mauser Infinity Series IBC**

The jury's verdict:

« Mauser created the first composite IBC with an inner receptacle made from PCR material. This product provided prove of technical feasibility and by that supported the case for the upcoming revision of the UN model regulation that will allow the use of dedicated PCR material within UN-approved IBC.»



The MAUSER<sup>®</sup> Infinity Series IBC is the first Composite IBC (C-IBC) with an inner receptacle made from post-consumer recycled plastics.

PCR material used for the manufacturing of the packaging origins from used industrial packaging - sorted and recycled by MAUSER according ISO 16103:2005. "From inner receptacle to inner receptacle." - The product demonstrates closed-loop-recycling of plastics and the benefits of cascading reuse and recycling in an innovative product/service concept on industrial packaging.

In combination of an injection moulded pallet made from PCR and a multilayer inner receptacle containing 40% PCR (HMW HDPE), MAUSER<sup>®</sup> Infinity Series IBC compiles to more than 70% PCR of total plastics used. Not compromising on the modular design concept of C-IBC, MAUSER<sup>®</sup> Infinity Series IBC is reusable and recyclable equivalent to standard C-IBC.

Conclusive as packaging itself, MAUSER<sup>®</sup> Infinity Series IBC proofs the technical feasibility of manufacturing large volume (1000 I) packaging from recycled plastics, which is to fulfil UN design-type performance criteria. Referenced as performance proof, the packaging design supported the successful industry (ICPP & ICCR) initiative on changing regulatory framework to allow usage of PCR materials in UN-approved IBC in the near future.



# Storopack (GERMANY)

#### Innovation : Onco Line Reusable System OL 15I

The jury's verdict:

« A specialized solution for the medical sector to meet the needs of highly sensitive applications. The use of Phase Change Material that allows for more efficiency in clinics is combined with low packaging weight, reusability and a removable lining for simple and effective cleaning. »



With this segment solution for the medical sector, vital, temperature-sensitive medication arrives at the patient at the optimal temperature. This is ensured by the PCM technology of the cooling elements made of hard plastic, whose melting range is precisely matched to the required temperature range - winter and summer. The box size is designed for infusion bags so they can be laid at inside. This prevents damage during transport such as a kink in the bag or on the infusion set. The Onco system is the ideal solution for the optimal temperature and offers even more. The boxes for temperature-controlled transport can be closed tightly, contain a bin and are additionally sealed with a gasket - this ensures reliable leakage protection at all times. The entire system solution is made of hard-wearing EPP and can therefore be used several times without losing its clean appearance. Even after 200 test runs, no signs of wear and tear were visible. Thanks to the smooth material surface and the removable tray all Onco-System components can be cleaned reliably and easily. The boxes can be sealed using the attached closure. If required, the components of the system solution can be reordered individually.



# **ETS Bernhardt et Cie (FRANCE)**

#### Innovation: SolarSack

The jury's verdict:

« The Solarsack from Bernardt takes packaging technology to a new level: it helps provide clean water in developing countries, refugee camps and other areas without access to drinking water. It is reusable up to 500times allowing to purify 2000l of water per bag. »



As of today, 2.2 bn people still lack a basic drinking-water service. The SolarSack provides an affordable and sustainable household water treatment solution only using sunlight to purify water.

The major advantage of the SolarSack resides in its simplicity. Once filled with 4L of water, it shall be exposed to the sun for a period of 4 hours. The joint action of UV-A, UV-B rays and an increase in temperature leads to a purification from dangerous pathogens. It has been designed to be reusable up to 500 times and constitutes an alternative to the process of boiling water using charcoal or wood as fuel. As such, each bag can save 2 trees or 600kg of CO<sub>2</sub> emissions during its life cycle.

From a technical perspective, the SolarSack consists in an innovative asymmetric structure combining a strong 3-layer laminate and 5-layer coextruded film with excellent UV transparency. The design and sealing tools have been adapted to create a mechanically resistant 4L bag that can last over time.

In conclusion, the SolarSack is an environmentally friendly solution for areas deprived of access to drinking water. It combines technological know- how at the design, film production and bag converting stages to create a scalable solution capable of addressing a key development issue: water safety.

#### **Boxon GmbH (GERMANY)**



Innovation : rPET Big Bag

The jury's verdict:

« The Boxon Big Bag is a great example on how packaging can help provide local business and waste solutions. It is produced from 96% rPET collected in Indonesia, where no formal waste collect system is in place. Recycling and production are taking place locally creating employment opportunities as well as reducing CO2-emissions caused by transport. »



Boxon converts PET bottles from Indonesia into new big bags. In this way, we help to reduce local plastic waste and to prevent marine pollution. After use, the R-PET Big Bag can be recycled again. Plastic waste is collected and delivered to one of the several collection points in Indonesia. After delivery to the processing site, all steps, from cleaning and sorting to the production of the Big Bags, take place in the same facility. In this way, long distance transports and repackaging can be avoided, which has a positive effect on the CO<sub>2</sub>-balance of the product. In addition, all production steps are 100 % traceable. Numerous positive effects on the environment:

- Prevention of marine pollution
- Effective re-usage of PET bottles
- Less resource input
- Up to 25 % less CO2-emissions
- End of Life: Recycling after use

Customers benefit from flexible customization options (incl. printing) and a big bag that is optimally tailored to the filled goods. 1 kg of woven R-PET is made from 25 1.5 l bottles. Approx. 50 PET bottles are used to produce an average 2 kg big bag. The R-PET Big Bags are manufactured in an ISO 9001 certified production

## Südpack Verpackungen GmbH & Co. KG (GERMANY)

**Innovation : Multipeel xPEP** 



The jury's verdict:

« The xPEP from Südpack is a great example how food packaging that provides protection as well as resealability can be recyclable and sustainable through weight reduction at the same time. »



Polyolefins are a promising solution to meet the future demand for the recyclability and reuse of film packaging. This is why SÜDPACK is developing new film packaging concepts using polyolefins, with the abbreviation xPEP. Many of our film solutions are available in an xPEP version – including Multipeel xPEP with its resealability. Resulting from that customers do not have to sacrifice functional film properties. On the contrary: the xPEP versions can be produced on the same machines as the standard film concepts and are also suitable for flexo, rotogravure and modern digital printing. Above all however, our Multipeel xPEP is certified by the independent certification institute cyclos-HTP as having a recyclability of 95 %.

Thanks to our latest developments we have improved our Multipeel xPEP even further. We have changed a complex material combination to a simpler pack that is easier to recycle: That's how our Pure-Line with the Multipeel PurePP was created. The top and bottom films are mainly made of polypropylene, a plastic that is widely recycled and reused in different products. In addition, up to 40% less plastic was used for this film packaging concept compared to previous packaging solutions.

# Storopack (FRANCE)

**Innovation : THE BOX** 



The jury's verdict:

« The special price of the Jury awards a promising start-up set out to revolutionize the world of Ecommerce. THE BOX by Storopack is reusable, refurnishable, recyclable and provides smart technology through E-ink display, sensors and an internet connection. »



Storopack presents THE BOX, a unique smart packaging that is infinitely reusable and packed with features to offer a new delivery experience for e-commerce companies and consumers. With THE BOX, LivingPackets is addressing major issues in the growing 4 trillion-dollar e-commerce market. The innovating design in EPP, 100% recyclable, guarantees more than 1000 applications while limiting its environmental impact and transport costs.

THE BOX is equipped with multiple sensors, an internet connection, an E-Ink display, and an automatic holding mechanism. This allows to eliminate packaging waste and to provide full remote control with each delivery, dramatically improved security, and a new level of convenience.

THE BOX isn't a packaging that is meant to be purchased once, instead it can be used as a service: Packaging-as-a-service. This means that e-commerce companies only pay for using them directly – and they don't have to pay more compared to deliveries with traditional cardboard boxes in the basic service package. With this offer and the easy integration into existing warehouse processes, many of the current problems become a thing of the past.