JAPAN

KEY INNOVATION IN PET BOTTLE RECYCLING WINS WORLD STAR PACKAGING AWARD

Ground-breaking technology for production of PET bottles entirely out of post-consumer waste has been recognized with a prestigious WorldStar Packaging Award. XTREME Renew was codeveloped by SIPA with Austrian recycling technology specialist EREMA. The two companies were honored at a gala ceremony hosted by the World Packaging Organisation (WPO) in Prague, Czech Republic in May. The WPO presents WorldStar Packaging Awards every year to what are considered by independent experts to be the best packaging solutions and applied technological innovations.

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XTREME Renew technology is unique in the world in its ability to produce bottles, suitable for food contact and with properties as good as those of bottles produced from virgin PET, directly from flakes of post-consumer scrap, in a single heat cycle. The recognition for this important development, which SIPA and EREMA hope will be adopted around the world as the Circular Economy takes shape, came a few months after the first XTREME Renew plant went into operation in Japan at the end of 2018.

EREMA and SIPA collaborated with two Japanese partners – also cited for the award – Kyoei Industry (a major recycling company) and Suntory (one of the largest beverage producers in the world) on an installation in Kasama. The system can produce over 300 million containers per year. A measure of the importance of the new installation can be taken by the fact that the inauguration ceremony was attended by representatives of ministers of industry, agriculture and the environment of Japan. Suntory, with sales of 20 billion dollars and 38,000 employees worldwide, fills more than 2.5 billion bottles every year. It is a leader in the production and distribution of beverages that include Schweppes and Orangina for European markets and PepsiCo for America.

EXTREME Renew uses EREMA technology to convert conventional washed bottle flakes into decontaminated melt-filtered PET food-grade melt with an increased viscosity (IV). This is then directly fed to a SIPA XTREME injection-compression preform molding plant (unlike other molding systems on the market that have to start from pelletized recycled material, RPET). Containers produced from the preforms boast a high level of aesthetics, thanks to the elimination of an entire melting process that could otherwise cause yellowing in

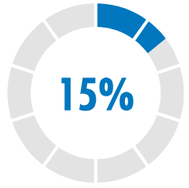
the resin. “This is a solution that represents the perfect response to the requirements of the new Circular Economy,” says Gianfranco Zoppas, President of SIPA parent company Zoppas Industries. “Waste reprocessing is rendered sustainable and economical while producing new products of the highest quality.

“This innovative technology uses 30% less electricity than traditional recycling processes, thanks largely to systems integration, while CO_2 emissions are cut by 25% – a massive 60% when you compare it to bottle production from virgin resin.” Zoppas concludes: “I am particularly honored that this Austro-Italian green technology has received important international recognition. It has already had such a success in Japan that our partners there are even now thinking of two additional installations that will triple the production capacity to up to almost a billion RPET bottles per year.”

Here are the advantages:

10% lighter PET containers,
leading to a competitive advantage in packaging.

Energy savings: -30%,
only 0.58 kWh/kg PET.



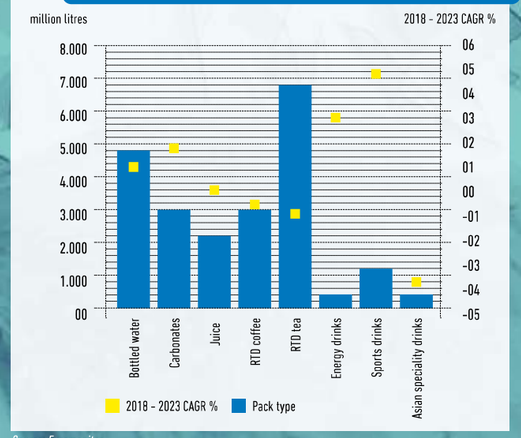
Lower TCO, up to -15%,
compared to conventional recycling.

CO_2 emissions: -60%
compared to virgin resin.

Advantage in logistics: -20%
logistics and transportation costs.

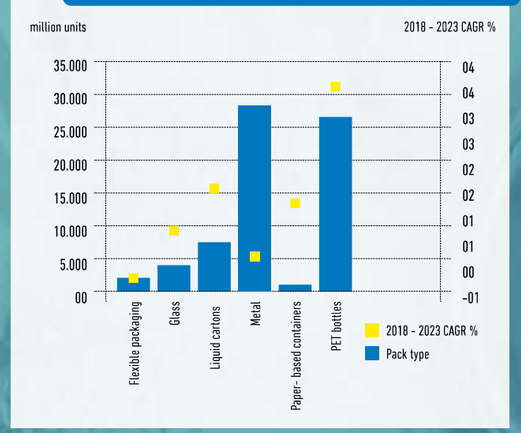
100% sustainable:
only recycled PET flakes.

2019 Market Size of Soft Drinks in Japan and expected growth



Source: Euromonitor

2019 Market Size of different pack type for Soft Drinks in Japan and expected growth (2018-2023)



Source: Euromonitor