

CASE STUDY

Making card games more circular with Borcycle™ M



EverMinds™

Accelerating Action
on Circularity

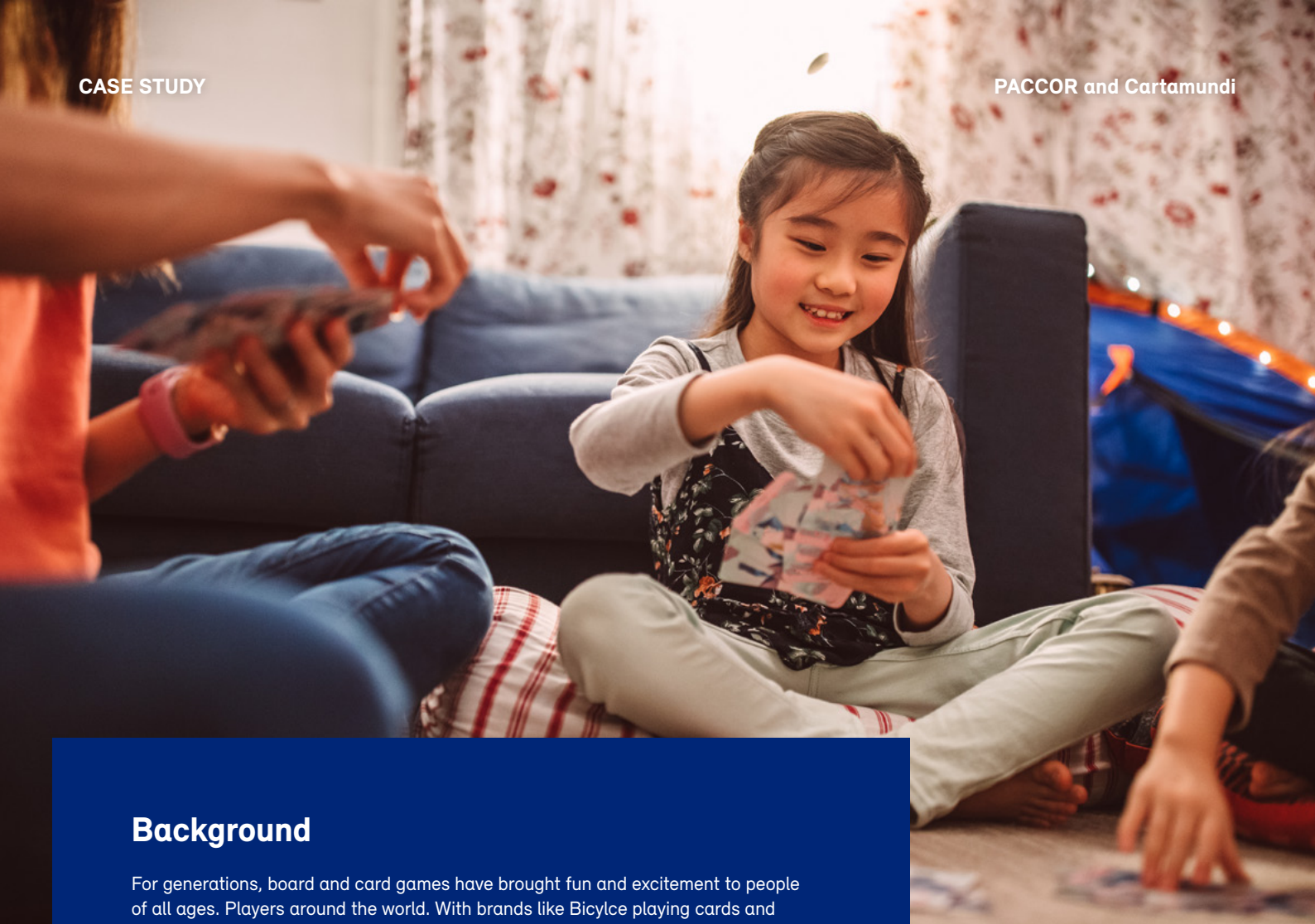


BOREALIS

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Borouge





Background

For generations, board and card games have brought fun and excitement to people of all ages. Players around the world. With brands like Bicycle playing cards and manufacturing customers like Pokémon and Hasbro, Cartamundi is one of the leading producers and manufacturers of card and board games globally.

Cartamundi employs a rigorous assessment process to decide which materials to use in its products, balancing the need for cost effectiveness with consumer value and the play experience. Its safety and quality standards are stringent, and must always be met by all third-party factories manufacturing its products. As a sustainability leader and a good corporate citizen, Cartamundi also strives to lower the environmental footprint of its products by using more circular packaging.

“Working together with our value chain partners around the world to find more circular packaging solutions is the essence of our EverMinds™ approach to accelerating plastics circularity. As this successful Cartamundi project shows, using our Borcycle™ M mechanical recycling technology is a versatile and energy-efficient way for our customers in rigid packaging to achieve their sustainability objectives. We look forward to new collaborative projects that not only make everyday life easier, but also help our partners capitalize on business opportunities in the circular economy.”

Florin Sabau
Global Commercial Director Rigid Packaging, Borealis

Challenge

In the case at hand, Cartamundi sought a way to lower the environmental footprint of a specific packaging format, a vibrantly colored plastic box containing card games. In making it more circular, it was essential to maintain the visual integrity of this rigid packaging format, and to allow no compromises when it comes to quality or safety.

Solution

Value chain cooperation among thin wall packaging expert PACCOR, card producer Cartamundi and Borealis was essential to determine the ideal replacement solution for virgin polyolefins. **Borcycle™ M XPF1011SY-90**, a grade from the Borealis portfolio of mechanically recycled polypropylene (PP), best fulfilled the criteria. This is because the transformational Borcycle™ mechanical recycling technology produces materials of consistently high quality for the most demanding applications, while at the same time reducing the environmental footprint of the final product.

Benefits

Using Borcycle M XPF1011SY-90 enhances packaging circularity while maintaining the same high packaging quality and characteristics. The “90” in the grade name refers to its white color. Being able to supply a recycled PP which is white rather than standard gray is crucial to ensuring easy colorability. In this case, Borcycle M XPF1011SY-90 produces highly colorful results, without soiling the color. This more circular grade also offers quality and robustness on par with virgin PP, with no taste or odor.

“Cartamundi is passionate about protecting the planet and its natural resources for future generations. Because we recognize the impact our business can have on the environment, we are working hard to reduce our footprint. We embrace sustainability challenges as opportunities to innovate and continuously improve our product design and the way we operate. This project is an excellent example of how we can lower our environmental footprint, one brand, and one product packaging unit at a time.”

Kevin Maes

Director Creative & Product Development, Cartamundi

“Our mission at PACCOR is to offer durable and innovative packaging solutions that ensure well-being and protect future generations. This is why we are driving the transition to a circular economy in which we constantly reuse, repair, remanufacture, and recycle. We are especially pleased to have been integral in bringing value chain partners together to create a tailor-made packaging solution with enhanced circularity for Cartamundi.”

Kristof Michielsen

Managing Director, PACCOR

Borealis and Borouge packaging solutions are making everyday life easier

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Borealis is one of the world's leading providers of advanced and sustainable polyolefin solutions. In Europe, Borealis is also an innovative leader in polyolefins recycling and a major producer of base chemicals. We leverage our polymer expertise and decades of experience to offer value-adding, innovative and circular material solutions for key industries such as consumer products, energy, healthcare, infrastructure and mobility.

With operations in over 120 countries and head offices in Vienna, Austria, Borealis employs around 6,000 people. In 2022, we generated a net profit of EUR 2.1 billion. OMV, the Austria-based international oil and gas company, owns 75% of our shares. The Abu Dhabi National Oil Company (ADNOC), based in the United Arab Emirates (UAE), owns the remaining 25%.

In re-inventing essentials for sustainable living, we build on our commitment to safety, our people, innovation and technology, and performance excellence. We are accelerating the transformation to a circular economy of polyolefins and expanding our geographical footprint to better serve our customers around the globe. Our operations are augmented by two important joint ventures: Borouge (with ADNOC, headquartered in the UAE); and Baystar™ (with TotalEnergies, based in the US).

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