



PRESS RELEASE

Mondi accelerates efforts to create flexible packaging from post-consumer recycled plastic

Project Proof, an Ellen MacArthur Foundation Pioneer Project led by Mondi, develops a usable pouch prototype containing 20% post-consumer waste bringing flexible packaging one step closer to a circular economy

Vienna, 05 June 2019 – Mondi Group, a global leader in packaging and paper, led Project Proof, a Pioneer Project facilitated by the Ellen MacArthur Foundation (EMF). The project has created a proof-of-concept prototype flexible plastic pouch incorporating a minimum of 20% post-consumer plastic waste originating from mixed household waste. The pouch is suitable for packaging household products such as detergent.

Project Proof is part of Mondi's commitment to the Ellen MacArthur New Plastics Economy Initiative. It is focused on designing products in line with circular economy principles and has shown that it is possible to use unclean and raw post-consumer recycled content to create new flexible packaging. Mondi will now develop the prototype further to ensure it can be rolled out as a commercially viable product for its multinational FMCG customers. This will support Mondi's work as a signatory of the New Plastics Economy Commitment to ensure a minimum of 25% of post-consumer waste is incorporated across all its flexible plastic packaging where food contact regulations allow by 2025.

Project Proof

Georg Kasperkovitz, CEO Mondi Consumer Packaging says, "We believe that working in partnership is key to finding a solution for plastic waste by driving innovation and broad systemic change throughout the plastics value chain with a focus on replacing, reducing and recycling."

Mondi spearheaded Project Proof to examine whether it is possible to produce two new flexible plastic packaging products: a recyclable plastic for flexible packaging made with a percentage of post-consumer waste; and a form fill and seal (FFS) pouch for food applications. Aiming to replace multilayer laminates, often found in food packaging, and therefore increasing recyclability. As the use of recycled materials and the creation of more recyclable plastics in flexible packaging increases in popularity, they will help circularity in the marketplace.

The Group's customer-centric approach, EcoSolutions, is helping customers to achieve their sustainability goals by focusing on packaging that is sustainable by design – paper where possible, plastic when useful.



Recycling with post-consumer material under the worst conditions

The first phase of the project successfully produced a prototype made with a minimum of 20% post-consumer waste, a flexible pouch for non-food applications such as laundry or dishwasher detergent. The origins of the post-consumer waste used were considered the worst-case of uncleaned and unprocessed material possible. After washing and sorting using a variety of technologies, the result was a recycled polymer resin, suitable for producing flexible packaging. This was processed into a final prototype, a fully-usable stand up pouch. The pouch has excellent construction, seal strength and zipper integrity. Its appearance is reminiscent of recycled paper with the mixed plastic material creating little flecks of inconsistent colouring.

“We wanted to see what was possible with the worst input, and we were able to create a fully usable prototype” explained Graeme Smith, Mondi Consumer Packaging’s Sustainability Manager. This proof-of-concept underlines the potential what could be manufactured when better quality, pre-sorted materials are used as input. Better waste collection mechanisms and a focus on packaging designed for recycling will improve this process and help close the sustainability loop.

Creating recyclable pouches for food packaging

The second part of Project Proof focused on long-life food pouches. The standards for food applications were held to high technical specifications agreed by the participating FMCGs. The aluminium barrier often found in food-standard plastic packaging can extend shelf-life, but creates problems in recycling. Project Proof created an opportunity for FMCG’s to re-evaluate and possibly reduce the specifications for certain requirements allowing more sustainable materials to be used.

There are already materials being tested based on a mono-material construction without problematic layers such as aluminium, which would make recycling possible in existing waste-streams. It was concluded that further development in this area was required as current offerings did not achieve the basic minimum specifications set by the brand owners. Joint Development Agreements are being discussed for future research opportunities in this area. Joint Development Agreements will help increase the pull of talent and technology in technically challenging areas of product development where only a full value chain of project team members can help decide future specifications and approvals for easier to recycle material solutions.

Pioneer Projects

Today's plastics packaging solutions face challenges that no single organisation can address alone. The EMF established Pioneer Projects as a means for the plastics industry to work together towards these solutions. Pioneer Projects are pre-competitive collaborations led by members of the New Plastics Economy Initiative, such as Mondi. Stakeholders from across the plastics value chain are invited to design and test innovations that could change the way we make, use, and reuse plastics based on the principles of a circular economy.

This provides a place for competitors to share knowledge in a secure way resulting in progress which would otherwise not be possible. As the facilitator of these projects, the EMF encourages circular economic thinking at all times to promote the generation of ideas that can be used by all.



Other Pioneer Projects underway

Also facilitated by EMF, other Pioneer Projects are underway and led by different stakeholders across the plastics value chain. Mondi is participating in three other ongoing Pioneer Projects: Project Barrier; Project Sea and Project Holy Grail. **Project Barrier** is focusing on developing guidelines for recyclable plastic-based flexible barrier packaging in the future. **Project Sea** is analysing waste material flows within a region to understand where waste accumulates at the end of its life. **Project Holy Grail** is developing tracers and digital watermarks to allow recyclers to automate the identification of plastic types quickly and ease recycling to support a circular economy.

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Notes to editors:

[Executive summary of Project Proof](#)

[Full report on the collaborative process and outcomes](#)

About Mondi

Mondi is a global leader in packaging and paper, delighting its customers and consumers with innovative and sustainable packaging and paper solutions. Mondi is fully integrated across the packaging and paper value chain – from managing forests and producing pulp, paper and plastic films, to developing and manufacturing effective industrial and consumer packaging solutions. Sustainability is embedded in everything Mondi does. In 2018, Mondi had revenues of €7.48 billion and underlying EBITDA of €1.76 billion.

Mondi has a dual listed company structure, with a primary listing on the JSE Limited for Mondi Limited under the ticker MND, and a premium listing on the London Stock Exchange for Mondi plc, under the ticker MNDI. Mondi is a FTSE 100 constituent, and has been included in the FTSE4Good Index Series since 2008 and the FTSE/JSE Responsible Investment Index Series since 2007.

www.mondigroup.com

The Ellen MacArthur Foundation

The Ellen MacArthur Foundation was launched in 2010 with the aim of accelerating the transition to the circular economy. Since its creation, the charity has emerged as a global thought leader, putting the circular economy on the agenda of leading businesses, governments, and academia. The Foundation's work focuses on five interlinking areas: insight and analysis; education and training; business and government; systemic initiatives; and communications. Further information: ellenmacarthurfoundation.org | [@circulareconomy](https://twitter.com/circulareconomy)
The Ellen MacArthur Foundation is not to be held responsible for any output from the Pioneer Projects. It focuses only on facilitating the setup and engaging in the process, and on encouraging circular economy thinking and the application of a systems perspective.

The New Plastics Economy initiative

The New Plastics Economy is an ambitious, three-year initiative to build momentum towards a plastics system that works. By applying the principles of the circular economy, it brings together key stakeholders to rethink and redesign the future of plastics, starting with packaging. The initiative is led by the Ellen MacArthur Foundation in collaboration with a broad group of leading companies, cities, philanthropists, policymakers, academics, students, NGOs, and citizens.

The initiative is supported by Wendy Schmidt as Lead Philanthropic Partner, MAVA Foundation, Oak Foundation, and players of People's Postcode Lottery (GB) as Philanthropic Funders. Amcor, The Coca-Cola Company, Danone, MARS, Novamont, PepsiCo, Unilever, and Veolia are the initiative's Core Partners. newplasticseconomy.org

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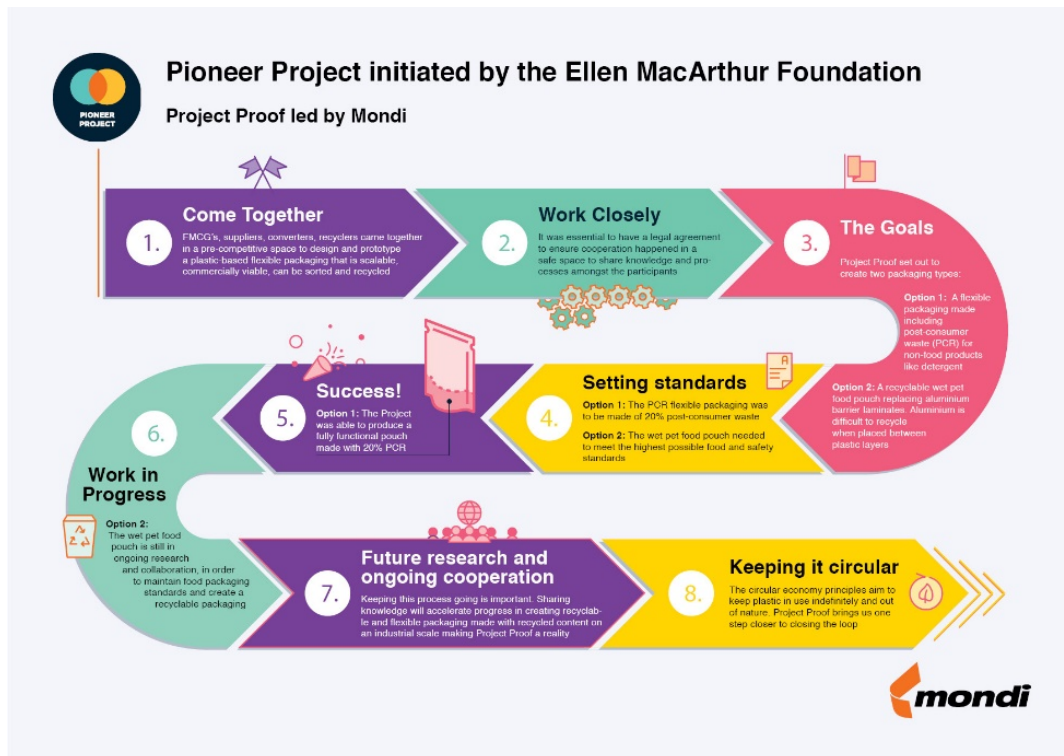
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Photos:



Mondi accelerates efforts to create flexible packaging from post-consumer recycled plastic.
(Photo: Mondi, PR131)



Mondi accelerates efforts to create flexible packaging from post-consumer recycled plastic. (Photo: Mondi, PR131)

This press release and relevant photography can be downloaded from www.PressReleaseFinder.com.

Alternatively for very high resolution pictures please contact Josina van der Velden (jvandervelden@emg-marcom.com, +31 164 317 014).