

H&M Foundation drives circular fashion through textile recycling facilities

As part of H&M's mission to become "truly circular" by 2030, its charitable arm, the H&M Foundation, has opened two hydrothermal textile recycling plants in partnership with The Hong Kong Research Institute of Textiles and Apparel (HKRITA).



The pre-industrial sized recycling facilities, located in Hong Kong, are considered the first of their kind because they use HKRITA's award-winning hydrothermal method to recycle cotton and polyester blends. Blends are the most used type of textile in the world – yet, they remain unrecyclable.

The launch of the Hong Kong plants marks the first time hydrothermal recycling technology is being put into practice at scale. The purpose of the facility is to invite fashion brands and stakeholders worldwide to see, test and implement this technology within their own operations. HKRITA will license the results widely to make it available to all and enable a bigger impact.

"This is a significant step towards a new fashion industry that operates within the planetary boundaries. As we scale up and make this technology freely available to the industry, we will reduce the dependence on limited natural resources to dress a growing global population," says Erik Bang, Innovation Lead H&M Foundation.

Garment-To-Garment Recycling System

The facilities will also feature a miniaturised Garment-To-Garment Recycling System and a retail shop selling the recycled garments, which are both open to the public. Customers can bring their unwanted clothes, and watch the container-sized system recycle their garments and make new fashion finds.

"Seeing is believing, and when customers see with their own eyes what a valuable resource garments at end of life can be, they can also believe in recycling and recognise the difference their actions can make," says Bang.

The Garment-To-Garment Recycling System is the result of a collaboration between HKRITA, the H&M Foundation and Novetex, with the support of The Mills.



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A technological breakthrough

The partnership between HKRITA and H&M Foundation aims to accelerate research on textile recycling to speed up the development of a closed loop for textiles, with the purpose to safeguard the planet and our living conditions.

In September 2017, only one year into the four-year long partnership between HKRITA and H&M Foundation, HKRITA presented a technological breakthrough with a hydrothermal method for recycling cotton and polyester blends into new fibres.

The recycling technology consist of chemical and hydrothermal treatments, to recycle cotton and polyester blends into new fabric and yarns. Today, the polyester can be extracted as fibres, ideal for spinning and making new fabrics. The cotton is extracted as cellulose powder, and can be applied to functional products or regenerated fibres.



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The H&M Foundation is projected to invest €5.8 million with HKRITA over four years. The investment is made possible through the surplus from the H&M group's in-store garment collecting programmes, which is donated to the H&M Foundation. The H&M Foundation allocates 50% of the total surplus to research on textile recycling and the other 50% to projects focusing on equality and inclusion of marginalized groups.

"After successfully developing revolutionary recycling technologies, we have devoted sustained effort to put them into practice. Our recycling systems represent the industry's well-applied innovation efforts. These not only revitalise a decades-old major industry, but also do it most sustainably for the benefit of our community and as a responsible global citizen," says Edwin Keh, chief executive officer of HKRITA.