

For Immediate Release

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### **HKRITA Announces a New Five-Year Collaboration with H&M Foundation to Revolutionize Sustainable Development of the Textile and Apparel Industry**

The Hong Kong Research Institute of Textile and Apparel (HKRITA) today announced a new forward-looking five-year collaboration plan with the non-profit H&M Foundation and under the theme of “Planet First”, to further drive the sustainable development of the textile and fashion industry.

Riding on our very successful partnership of the past four years, the new collaboration will see H&M Foundation increasing its financial commitment to US\$12 million and continuing to leverage on its extensive network to make the planet positive goal a reality. At the same time, HKRITA will conduct research on current technology enhancements and new technology breakthroughs, while working closely with H&M Foundation to commercialise these. The research projects will continue to gain substantial support from the Innovation and Technology Fund of the HKSAR government.

A new comparative environmental impact assessment on the hydrothermal separation treatment (The Green Machine), one of the successful technologies developed over the first partnership, is being conducted to quantify the environmental impacts relating to all key stakeholders along the whole supply chain, and ultimately help promote the adoption of this breakthrough technology.

“We don’t know what a planet positive fashion industry will look like, no one does. This goal is directional and requires innovation and thinking outside the box in every step of the fashion value chain. The partnership with HKRITA has far exceeded our expectations and we are excited to expand in scope and ambition. We look forward to making the Planet First programme a revolutionary one, together with the team at HKRITA,” said **Mr. Erik Bang, Innovation Lead of H&M Foundation.**

“Our partnership with the H&M Foundation is guided by speed, scale and impact. Our goal is to find technologies and solutions that we can openly share with the industry to ensure rapid scaling and a positive impact. To our knowledge, this is the most ambitious programme of its type, designed to move the needle in this industry, and we are very excited to start discovering the breakthroughs that can change the game,” said **Mr. Edwin Keh, Chief Executive Officer of HKRITA.**

#### ***Latest Technology Breakthroughs in the drive towards a Closed Loop Textile Industry***

Building on the comprehensive effort and the ongoing achievements of the first partnership, including the first retail model of the Garment to Garment Recycling System (G2G) in H&M Stockholm and the commercial application of the hydrothermal separation treatment technology in Monki’s latest collection, the upcoming collaboration aims to further develop scalable planet positive technologies for the industry with concrete applications, to help mitigate impacts on the environment. Here are some of the latest sustainable technology breakthroughs under the overarching theme of “Planet First”: -

- **Carbon Dioxide (CO<sub>2</sub>) Capturing Cellulose Textiles:** To develop an amine containing cellulosic yarn for adsorbing and capturing CO<sub>2</sub> from the air and a corresponding effective CO<sub>2</sub> desorption system.
- **Bio-removal of Denim Indigo by Macroalgae:** To develop a bio-based alternative to remove denim indigo in wastewater with photosynthesis and other biological reactions of macroalgae.
- **Regenerated Cellulose Fibre:** To make use of the recycled cellulose powder decomposed from cotton after hydrothermal reaction of cotton polyester blends to produce regenerated viscose fibre. This is a project in collaboration with Daiwabo Rayon Co., Ltd., a leading fibre and textile manufacturer.
- **Superabsorbent Polymer (SAP):** To transform cellulose powder recycled from used cotton polyester blends into superabsorbent polymer (SAP). Following the half-year experiment conducted in 2020 by

Shahi, the largest garment manufacturer in India, a larger trial is planned for 2021 to understand the application and impact of SAP under rainfed farming conditions. HKRITA is also working on producing SAP on an industrial scale.

### ***Upcoming Joint Initiatives for Planet Positive Production and Innovations***

HKRITA and H&M Foundation commissioned an award-winning consulting firm, PIE Strategy Ltd., to conduct a 3-month comparative environmental impact assessment of hydrothermal separation treatment (The Green Machine). The full report will provide a comprehensive picture of the environmental benefits of the technology used throughout the entire lifecycle of a garment in the first quarter of 2021.

In addition, a joint applied research laboratory programme will be launched in Hong Kong to develop solutions to pave the way to a planet positive future, calling for industry collaboration and support, and further facilitating the sustainable development of the textile and fashion industry. All technologies and solutions developed by HKRITA under the collaboration are open to stakeholders for applications and commercialisation in all markets across the globe.

To view the press conference, please click [here](#).

### **About The Hong Kong Research Institute of Textiles and Apparel (HKRITA)**

Established in 2006, HKRITA is funded by the Innovation and Technology Commission of the HKSAR Government and is hosted by The Hong Kong Polytechnic University. HKRITA contributes to the competitiveness of the textile and apparel industry by providing one-stop services in applied research, technology transfer and commercialisation. HKRITA also plays a vital and expanding role in driving sustainable improvements in the industry and thus bringing benefits to society as a whole.

### **About H&M Foundation**

[The H&M Foundation](#) is an independent non-profit global foundation headquartered in Stockholm, Sweden. It is privately funded by the Stefan Persson family, founders and main owners of the H&M group. Founded to fast track the achievements of the UN Sustainable Development Goals 2030 to improve lives for everyone everywhere, H&M Foundation uses collaboration and innovation to co-create, fund and share solutions for the world's most urgent challenges. To help safeguard the welfare of humanity we're ushering the fashion industry to become planet positive, and we accelerate development for inclusive societies. Since 2013, the family has donated SEK 1.5 billion. To learn more, go to [hmfoundation.com/planet-first](https://hmfoundation.com/planet-first) and follow @hmfoundation on [Facebook](#), [Instagram](#), [YouTube](#) and [LinkedIn](#).

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