

CIRCULAR ECONOMY BUSINESS CASE STUDIES IN SOUTHEAST ASIA



## Kloth Circularity

- Malaysia and Singapore
- Textiles, clothing and plastics
- [www.klothcircularity.com](http://www.klothcircularity.com)
- Analysis period: 2018-2024

# Enabling Circular Recovery of Textiles and Garments Waste

### Business Spotlight

Kloth Circularity, a women-led social enterprise, catalyzes circularity for textile, clothing and plastic waste. Founded in Malaysia, Kloth Circularity operates actively in Malaysia and Singapore, and is making its entry in Australia and the United Arab Emirates in 2024. Founded in 2013, the company is committed to recovering fabric from end-of-life clothing and textiles, and engaging retailers, brands, communities and other stakeholders to meet sustainability goals with responsible practices. Kloth Circularity acts as a circularity enabler, in collaboration with a variety of stakeholders to promote installing recycling bins, raising awareness and educating consumers. Kloth Circularity is developing waste value chains that include collecting, sorting, repurposing, upcycling, and recycling of textiles, garments, and plastic bottle waste back into textiles and garments.

This holistic approach addresses environmental, economic, and social impacts to foster a sustainable and circular textile industry. Kloth Circularity works through several cause-driven brands, such as Kloth Cares, Kloth Woman Up, Kloth Textile, and Kloth Wear. The brands reflect Kloth's dedication to reducing clothing and textile waste and promoting environmental stewardship and social responsibility. By means of innovative solutions and strong

partnerships, Kloth Circularity is paving the way for a more sustainable future in the textile and clothing sector. Kloth Circularity aims to expand its network of recycling bins, enhance educational outreach, and develop new partnerships so as to further scale their impact and contribute to sustainable practices in the textile industry.

### Keywords

Textile recycling, Social enterprise, Upcycling

### Innovation

End-of-life management, Resource circularity



# Analysis of Kloth Circularity

## Context and baseline

Malaysia generates an estimated 432,900 metric tonnes of textile waste, which is equivalent to approximately 3.1% of the 13.9 million metric tonnes of total waste generated in 2021.<sup>1</sup> As a response to this issue, Kloth Circularity is promoting clothing and merchandise from recycled materials, particularly recovered clothing and textile waste and recycled polyester (rPET) from waste bottles. While early challenges included low market demand and limited public awareness, Kloth Circularity has now become a key enabler for the circular economy. By collecting, recycling, and repurposing textiles, Kloth Circularity helps brands meet their sustainability goals while making a positive environmental statement. The company has built strong partnerships with over 1,000 reputable collaborators, including major organisations like SHELL, IKEA, AEON, CapitaLand, Hilton Hotels, Sunway Malls, Adidas, Victoria Secret and Levi's, which have in turn expanded their recycling efforts, leading to the installation of over 500 collection bins, and empowering communities through upcycling projects. Additionally, since the Kloth Cares initiative was launched in 2018, Kloth Circularity has raised public awareness and facilitated textile recycling.

## Innovation

Kloth Circularity promotes a holistic approach to managing textile and clothing waste, linking brands and circular economy practices. By installing fabric recycling bins at community, store and corporate locations, Kloth Circularity is facilitating the collection of textile waste, which is then manually sorted into over 500 categories for reuse, repurposing, or conversion into refuse-derived fuel. The company also collects mismanaged plastic bottles for recycling and uses some third-party recycled PET fabrics in upcycled products.

Kloth Circularity manages textile recycling bins and ensures re-utilisation at the highest attainable levels, e.g. as second-hand clothing; repurposed into merchandise; as industrial wipes; or as alternative fuel if not suitable for reuse or repurposing. The company also conducts educational campaigns, collaborates with stakeholders, and involves marginalised communities in sorting and stitching. This model creates convenient textile and garment recycling options, raises public awareness, and provides eco-friendly solutions for corporate textile waste disposal.

Kloth Circularity's unique approach has produced significant change in the textile-waste value chain,

fostering partnerships with government bodies, corporations, academic institutions, and local communities. By involving community members in sorting, repurposing, and upcycling, Kloth Circularity has empowered marginalised women via the Kloth Woman Up initiative, offering job opportunities and promoting social equity. Such collaborative effort is strengthening textile waste management practices and advancing responsible waste recovery and utilisation strategies.



## Circular Economy impact

Kloth Circularity contributes to circular economy in the textile and garment sector by recovering textile waste and reintegrating the recovered cloth into new product cycles, exemplifying resource circularity. Between August 2018 and June 2024, by installing over 500 fabric recycling bins and through corporate collection, Kloth collected and recycled more than 8,800 metric tonnes of unwanted garments and textiles, the equivalent of over 40 million T-shirts. About 90% was collected in Malaysia and the remainder in Singapore, Australia and UAE. From July 2020 to June 2024, more than 50 marginalised women produced over 41,000 upcycled merchandise and gift items.

Additionally, Kloth Circularity's efforts have diverted over 310,000 mismanaged plastic bottles from waste streams, supplying them to PET recyclers instead. The recovery and upcycling efforts prevent textile and plastic waste from being sent to landfills, averting land degradation, soil and water pollution, and potential contributions to landfill methane emissions. These efforts have also reduced the demand for virgin raw materials, thus avoiding environmental deterioration from fibre and fabric production. By reducing landfill waste, Kloth Circularity is helping to mitigate the methane emissions and water pollution caused by decomposing natural fabrics.

<sup>1</sup> <https://www.businesstoday.com.my/2023/12/06/waste-management-in-malaysia-generate-less-separate-more/>

## Business and market impact

Kloth Circularity operates as a key enabler in the circular economy by focusing on the recovery of textile and clothing waste for circular reutilization and upcycling. Their business model is based on payment for collection of textile waste coupled with sales of second-hand or upcycled garments, new textile items, and merchandise, with both contributing about equally to revenue. The company specialises in the collection and management of various materials, providing tailored solutions to brands to help them meet their sustainability goals. Kloth Circularity not only collects textiles but also works closely with brands to find the best recycling solutions, with support for marketing communications to highlight the eco-friendly practices of its client companies.

In addition to their collection efforts, Kloth Circularity has successfully scaled up its fabric recycling operations, processing at least 3,000 metric tonnes of textiles in 2023. Their educational programmes, raising public awareness on the importance of recycling and sustainability, have been expanded, while strong, sustainable partnerships with corporate entities and community stakeholders have been formed. Diversification into recycling methods now includes transforming plastic bottles recycled PET fabric by third-party recyclers for subsequent use in products like T-shirts, effectively combining textile and plastic waste recovery into one cohesive circular strategy.

## Stakeholders

Governments, ministries and local councils, corporations, textiles and clothing producers and retailers, academic institutions, media and the community all contributed to developing and commercialising the circular initiatives of Kloth Circularity. Government support has provided regulatory frameworks and funding opportunities, while corporate partnerships with brands like SHELL, IKEA, AEON, CapitaLand, Hilton Hotels, Sunway Malls, Adidas, Victoria Secret and Levi's have enhanced visibility and operational capabilities. Community engagement has been pivotal, with local participation in fabric collection and recycling bolstering outreach efforts. The impact of Kloth Circularity on employment and livelihood creation has been substantial: thanks to the Kloth Woman Up initiative, over 50 women from impoverished communities are currently involved in creating upcycled textile merchandise and gift items, which in turn has improved income security for them and fostered the development of their skills in textile upcycling. Indirectly, expanded fabric recycling services have created opportunities in waste management and logistics within participating communities. This dual

approach not only supports sustainable practices, it also fosters economic resilience and social equity in Malaysia.



## Implementation

Kloth Circularity has benefitted from significant incentives, including partnerships with major organisations facilitating the installation of a dense network of recycling bins and the development of upcycled products. In addition, Kloth Circularity's educational campaigns and collaborations have increased public awareness on and acceptance of textile recycling, overcoming resistance and fostering community involvement. Scaling up presents opportunities to expand the recycling bin network, increase the volume of waste processed, and collaborate with technology partners. Leveraging existing partnerships can facilitate entry into new markets and enhance infrastructure. Challenges do, however, remain, including maintaining consistent quality control across a larger scale and managing the logistics of expanded operations. Furthermore, replicating the model in different regions requires adapting to local regulations and waste management practices.

## Takeaways

The journey of Kloth Circularity demonstrates the transformative power of collaboration at all levels when advancing circularity practices. By integrating circular economy principles into textile recycling and upcycling, Kloth Circularity has significantly reduced negative environmental impact while generating meaningful social and economic benefits. Their success demonstrates that significant change is achievable when diverse stakeholders – businesses, governments, and communities – unite toward a shared vision.



## Acknowledgements

This business case study was prepared within the framework of the Technical Advisory project: Mobilising Business Action for Circular Economy in the ASEAN countries under the EU SWITCH-Asia Policy Support Component for the sole purpose of documenting and analysing business experiences with the circular economy. The case study was produced by Natrika Sirinaspokin (researcher) and reviewed by Rene Van Berkel and Thomas Thomas (regional experts) on the basis of information provided and validated by Kloth Circularity, Malaysia.

## Disclaimer

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