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A Sustainable Pathway in Fashion Industry in 2030

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Textiles, clothing and fashion are a fundamental part of everyday life and an important sector in the global economy. The \$1.3 trillion clothing industry employs more than 300 million people worldwide along the value chain. After the oil industry, textiles and clothing form the second largest polluting sector in the world. The sector accounts for 10% global carbon emissions, 25% of chemical emissions and is second only to agriculture as a consumer of water. (Carmen Busquets, 2018). By 2030, world apparel consumption is projected to rise by 63% by 2030 to 102 million tons in 2030 with significant increases in water consumption (+50%), CO2 emissions (+63%) and waste generation (+62%). (Kerr and Landry, 2017)

This paper will explore the major trends and issues which will impact on fashion industry in 2030 e.g. smart wearable technology and circular design. In 2030, wearable technologies aimed at consumers will constitute an emergent market and are expected to be growing fast. However, to ensure reduced waste arising from mixing fibres and electronics, circularity will need to be integrated into design and development (D&D). The clothing, textiles and fashion sectors will need to increasingly implement D&D strategies to enable disassembly and the separation of fibres at 'end of first life' to reduce waste, and enable product and materials life extension.

The paper will also discuss how the fashion industry is moving towards a more sustainable pathway including the impact on designers, examples of design for circularity and sustainability in practice and new developments in sustainable materials.