

ECF CIRCULAR FASHION EDUCATION PROGRAMME

FACT & REFERENCE SHEET

MODULE ONE:

More, more, more: overproduction, overconsumption and fast fashion business models

The number of garments produced annually has doubled since 2000 and exceeded 100 billion for the first time in 2014: nearly 14 items of clothing for every person on earth.¹

The average consumer now buys 60 percent more clothing items a year and keeps them for about half as long as they did about 15 years ago.²

Over 1,100 workers perished in the horrific tragedy that engulfed Rana Plaza on April 24, 2013.³

1 in 2 shoppers (in the US) say they don't want to be seen in the same outfit twice.⁴

70% of shoppers (in the US) say they have purchased a single-use outfit.⁵

208M lbs of waste were generated by single-use outfits in 2019 (in the US).⁶

Four in ten (39%) (Hong Kongers) have thrown away an item of clothing after wearing it just once and, in the past year alone, a fifth of all respondents (20%) have thrown away at least three items that they've only worn once.⁷

An incredible 86 percent of (fashion) companies use influencer marketing.⁸

¹ McKinsey Company (2016), [Style that's sustainable: A new fast-fashion formula](#)

² McKinsey Company (2016), [Style that's sustainable: A new fast-fashion formula](#)

³ ILO (2019), [Rana Plaza anniversary - Enforce building code for all public establishments](#)

⁴ ThredUp(2020), [2020 Resale Report](#)

⁵ ThredUp(2020), [2020 Resale Report](#)

⁶ ThredUp(2020), [2020 Resale Report](#)

⁷ YouGov (2017), [Fast fashion: 39% of Hong Kongers have thrown away clothing after wearing it just once](#)

⁸ BOF and McKinsey & Company (2020), [The State of Fashion 2020](#)

2 out of 5 people in APAC (Asia Pacific) shop for clothes online at least once a month.⁹

Over 40% of APAC (Asia Pacific) consumers find inspiration for their new purchases through online shops.¹⁰

Should the global population reach 9.6 billion by 2050, the equivalent of almost three planets could be required to provide the natural resources needed to sustain current lifestyles.¹¹

On average, 392 tonnes of textiles were discarded every day into Hong Kong Landfills in 2018 (of which, about 50% of the textile waste (or about 196 tonnes) was clothing items).¹²

In a recent survey, the least important SDG (Sustainable Development Goal) was felt to be SDG 12 Responsible Consumption and Production. Nevertheless, 76% of respondents considered it to be important. This result is consistent with the findings of the '2018 SDG Index and Dashboards Report' published in July 2018 by the SDSN and Bertelsmann Stiftung, which stated that 'the world's progress towards sustainable consumption and production patterns is too slow'.¹³

Nine in ten Generation Z consumers believe companies have a responsibility to address environmental and social issues.¹⁴

Gen Z alone will account for 40 percent of global consumers by 2020.¹⁵

⁹ YouGov(2018), [Consumer Purchase Behaviour for Fashion across APAC](#)

¹⁰ YouGov(2018), [Consumer Purchase Behaviour for Fashion across APAC](#)

¹¹ UN Sustainable Development Goals, [Goal 12: Ensure sustainable consumption and production patterns - Facts & Figures](#)

¹² Hong Kong SAR, Hong Kong Environmental Protection Department (2019), [Monitoring of Solid Waste in Hong Kong - Waste Statistics for 2018](#)

¹³ Sustainable Development Solutions Network (SDSN Hong Kong) (2018), [SDSN Hong Kong Commissions Youth Survey on SDGs](#)

¹⁴ BoF and McKinsey & Company (2019), [State of Fashion 2019](#)

¹⁵ BoF and McKinsey & Company (2019), [State of Fashion 2019](#)

MODULE TWO:

Fashion's dirty secret: clothing pollution and textile waste

Polyester has a market share of around 51.5% of total global fiber production. Cotton is the second most important fiber in terms of volume, having a market share of approximately 24.4 percent of global fiber production in 2018/19.¹⁶

A shirt made from polyester has double the carbon footprint compared to one made from cotton. A polyester shirt produces the equivalent of 5.5kg of carbon dioxide compared to 2.1kg from a cotton shirt.¹⁷

The land occupation impact from the entire lifecycle of one pair of Levi's® 501® jeans equates to 12 m² land. If we exclude the transportation and consumer use stage, the production of one pair of jeans uses 10m² land.¹⁸

More than 150 million trees are logged every year and turned into cellulosic fabric – if placed end to end those trees would circle the earth seven times.¹⁹

(Globally) The fashion industry is projected to use 35% more land for fibre production by 2030 - an extra 115 million hectares that could be used to grow crops for an increasing population or preserve forests to store carbon.²⁰

25% of all chemicals manufactured globally are used in the textile industry.²¹

Less than 3% of the world's water is fresh (drinkable), of which 2.5% is frozen in Antarctica, the Arctic and glaciers. Humanity must therefore rely on this 0.5% for all the fresh water needs of human ecosystems.²²

¹⁶ Textile Exchange (2019), [Preferred Fiber & Materials Market Report 2019](#)

¹⁷ BBC Future (2020), [Can fashion ever be sustainable?](#)

¹⁸ Levi Strauss & Co. 2015, [THE LIFE CYCLE Understanding the environmental impact of a pair of Levi's® 501® jeans.](#)

¹⁹ Canopy (2020), [Survival: A Plan for Saving Forests and Climate: A Pulp Thriller 2020](#)

²⁰ Global Fashion Agenda and The Boston Consulting Group, Inc. (2017), [Pulse of the Fashion Industry 2017](#)

²¹ Bluesign Technologies, AFIRM RSL Seminar presentation, September 27, 2007. Reprinted in BSR, [Water Management in China's Apparel and Textile Factories](#)

²² UNESCO, [SDG Resources for Educators - Responsible Consumption and Production](#)

Some 2.2 billion people around the world do not have safely managed drinking water services, 4.2 billion people do not have safely managed sanitation services, and 3 billion lack basic handwashing facilities.²³

Producing just one conventional cotton T-shirt uses up to 2,720 litres of water.²⁴

The fashion industry, including the production of all clothes which people wear, contributes to around 10% of global greenhouse gas emissions due to its long supply chains and energy intensive production. The industry consumes more energy than the aviation and shipping industry combined.²⁵

Around 70 million barrels of oil a year are used to make polyester fibres in our clothes.²⁶ This is equivalent to the amount of oil a Boeing 747 plane would burn for about 81,666 10-hour flights.²⁷

Every second, the equivalent of one garbage truck of textiles is landfilled or burned. (Based on an average density of 150kg/m³ for a bale of textiles and a volume of 17.5m³ of a garbage truck).²⁸

Polyester clothes can take over 200 years to decompose. The estimated decomposition times for other fibres are: cotton 1-5 months; nylon 30-40 years; leather 30-40 years and wool 1-5 years.²⁹

²³ UNICEF; World Health Organization (2019), [Progress on household drinking water, sanitation and hygiene 2000-2017: Special focus on inequalities](#)

²⁴ Chapagain, A., Hoekstra, A., Savenije, H. and Gautam, R. (2006). [The water footprint of cotton consumption: An assessment of the impact of worldwide consumption of cotton products on the water resources in the cotton producing countries. Ecological Economics, 60\(1\), pp.186-203](#)

²⁵ UNFCCC (2019), [UN Helps Fashion Industry Shift to Low Carbon](#)

²⁶ BBC Future (2020), [Can fashion ever be sustainable](#)

²⁷ Calculation is based on: [A plane like a Boeing 747 uses approximately 1 gallon of fuel \(about 4 liters\) every second. Over the course of a 10-hour flight, it might burn 36,000 gallons \(150,000 liters\). According to Boeing's Web site, the 747 burns approximately 5 gallons of fuel per mile \(12 liters per kilometer\)](#)

²⁸ Ellen Macarthur Foundation (2017), [A New Textiles Economy: Redesigning Fashion's Future](#)

²⁹ W24 (2018), [Fashion Waste: this is how long it takes your clothes to decompose](#)

MODULE THREE:

The future of fashion: innovative technology and circular business models

Today, the global fashion market has attained a value of US\$1.9 trillion and is expected to grow at 4% to reach a value of US\$ 3 trillion by 2030.³⁰

About 95% of the textiles that are landfilled each year could be reused or recycled.³¹

87% of material used for clothing production is landfilled or incinerated after its final use, representing a lost opportunity of more than USD 100 billion annually, coupled with negative environmental impacts.³²

Around 80% of a product's environmental impact is locked in at design stage.³³

Recyclables recovered from Hong Kong Municipal Solid Waste in 2018 were: Paper - 694,600 tonnes (39.1%); Plastic - 64,200 tonnes (3.6%); Textile - 6,400 tonnes (0.4%).³⁴

After use, less than 1 percent of material used to produce clothing is recycled into new clothing.³⁵

Today, the global economy is only 8.6% circular — just two years ago it was 9.1%.³⁶

³⁰ Fibre2fashion.com. (2019). [The Big Shift: 5 Mega Trends That Will Influence Future Strategies](#)

³¹ Secondary Materials and Recycled Textiles Association, [Press Kit Online](#)

³² Ellen Macarthur Foundation (2017), [A New Textiles Economy: Redesigning Fashion's Future](#)

³³ WRAP, [WRAP and the circular economy](#)

³⁴ Hong Kong SAR, Hong Kong Environmental Protection Department (2019), [Monitoring of Solid Waste in Hong Kong - Waste Statistics for 2018](#)

³⁵ Ellen Macarthur Foundation (2017), [A New Textiles Economy: Redesigning Fashion's Future](#)

³⁶ Circle Economy (2020), [The Circularity Gap Report 2020](#)