

Environment

Waste no more

RecyCOOL Lessons

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Waste no more

Description:of the lesson

In this lesson you will go into a fashion value chain from the waste production side and its impact on our environment. You will explore two main types of waste (pre and post consumer waste) and try to explore them through the fashion value chain. At the end you will try to find a solution as a consumer/ customer, as well as a citizen.

Objective

Objective of this lesson is to be able to clearly recognise where the waste is created throughout the fashion value chain (pre-consumer and post-consumer) and search for solutions to this environmental problem in our own surroundings.

After this lesson you will be able to

- identify sources of waste in each point of fashion value chain
- define the difference in pre-consumer and post-consumer waste
- recognise our own impact on the reduction of waste created by the fashion industry

Tools and materials:

pen, paper

PRE-CONSUMER WASTE:

Pre-consumer waste - is generated by textile and clothing manufacturers during any stage of the production of clothing. Pre-consumer wastes include textile scraps after the cutting of garment pieces, leftover textile samples, selvages, end-of-roll wastes, damaged materials, part-finished or finished clothing samples from the design and production department.

POST-CONSUMER WASTE:

Post-consumer waste - is mostly waste discarded by individuals during and after using a garment. It includes waste created by care for the garment - ie. with the process of washing it, and also includes the disposal of it.



You might already have heard of a fashion value chain. It is a 'chain' of steps it takes to produce a fashion garment, from farm or fibre production to closet and then collection and disposal. These steps are more or less similar with most of the products around us - cars, building materials, food, books, furniture... And it is very similar with production of new products and recycled ones.

In a fashion value chain we recognise 4 main areas



Photo credit: [Downey](#)

Take an ordinary t-shirt (or any other garment from your wardrobe) and try to imagine the value chain (steps) of its production from materials to your wardrobe, and then to disposal (consider all parts of it – fabrics, threads, labels, zippers and buttons).

Try to think with each step what kind of WASTE and POLLUTION it might produce. Make a note of it (write it down on paper or draw a picture, but feel free to make a proper mind map with all the colours of the rainbow!) If you are not sure, write it down anyway, and if you don't know at all – never mind, we will explore it in this lesson!

“Pollution is nothing but the resources we are not harvesting. We allow them to be dispersed because we’ve been ignorant of their value.”

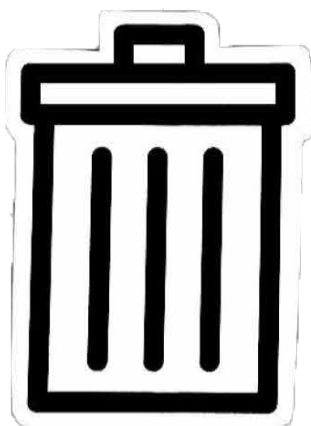
– R. Buckminster Fuller (American inventor and architect)

It might be surprising, but waste is not created only at the end of the product’s life. The moment an item becomes broken or damaged– or, when we simply don’t want it anymore – yes, in that moment it becomes a waste!

Waste is created all the way from production through transport and packaging to our consumption. It’s like with cooking – the waste is not only your uneaten omelette, but also eggshells from its preparation, as well as the pollution that is created by the CO² used on electricity production by the cooker, or even the dishwasher afterwards.

Waste is not necessarily a bad thing – if it’s reasonably managed, it can be reduced or reused as a source of material or energy for other activities. But to do that, we need to know where exactly it is created and why.

We usually talk about two kinds of waste – pre-consumer and post-consumer.



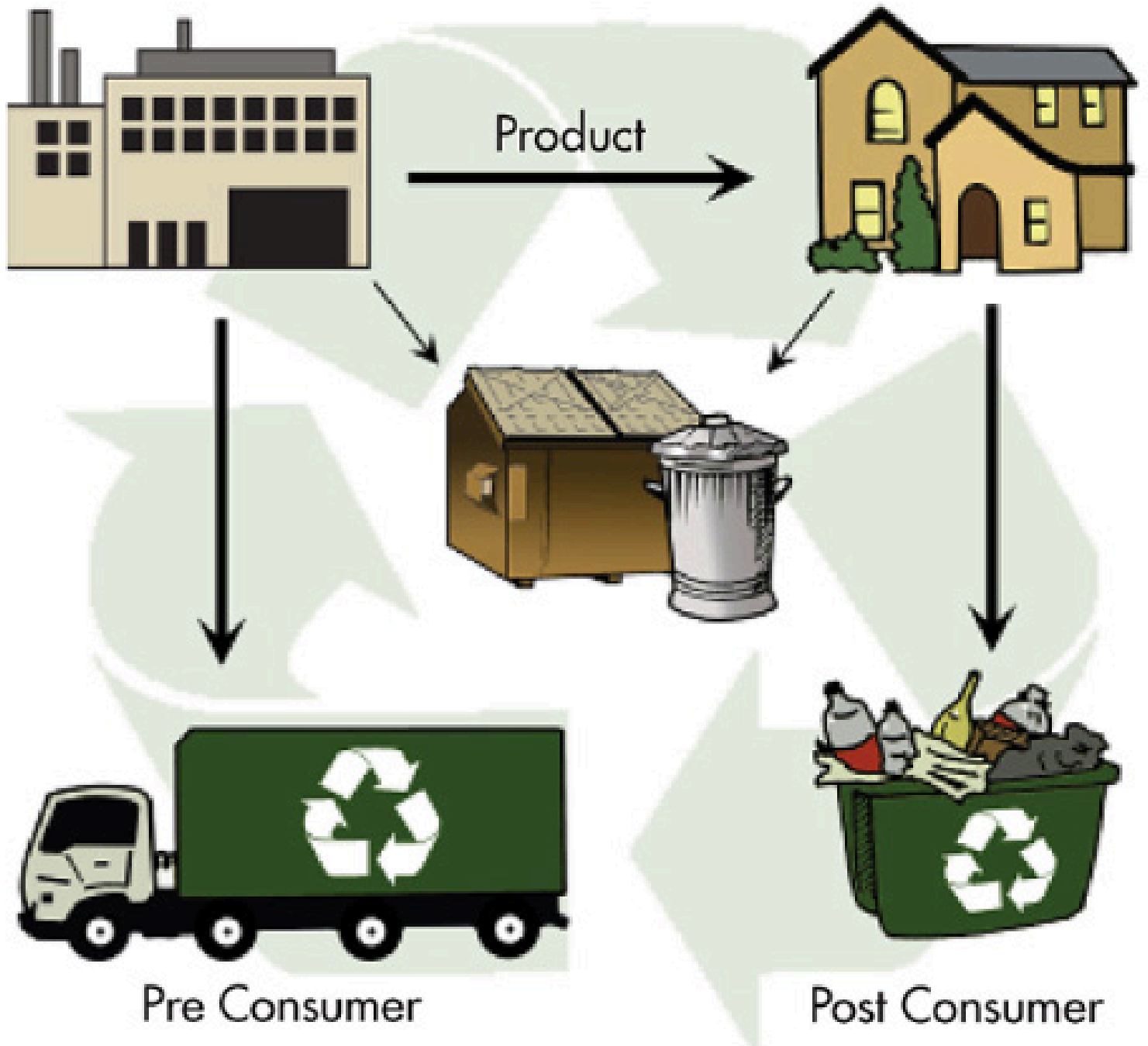


Photo credit: [Building green](#)

Pre-consumer waste is generated by textile and clothing manufacturers during any stage of the production of clothing. Pre-consumer wastes include textile scraps after the cutting of garment pieces, leftover textile samples, selvages, end-of-roll wastes, damaged materials, part-finished or finished clothing samples from the design and production department.

Up to 47% of all fibre entering the fashion value chain becomes waste

Pre consumer waste is mainly created in following areas of our garment production:

- **growing natural materials**, such as cotton or linen (pesticides, CO² from machinery while sowing or harvesting, etc)
- **producing synthetic materials** such as polyester or elastane in any of three main ways of synthetic fibre production (mechanical or chemical extraction and retting process) (extraction of petroleum, transport, fumes created during transformation of petroleum into a fibre, etc)
- **dyeing** – in both natural or chemical dyeing (of course chemical dyeing (if not managed properly) has far more devastating impact on environment and waste is just released into our rivers or water sources – which sadly, usually is the case)
- **fabric cut-offs**, end-of-rolls and damaged fabrics from production– plus prototypes, and ‘sample garments’ that are made as a draft before the final product goes to final production are also wasted

All this is waste and pollution made BEFORE we even purchase our clothing! So what's the post-consumer textile waste?

Post-consumer waste is mostly waste discarded by individuals during and after using a garment. It includes waste created by care for the garment, such as its washing, before finally it is discarded and disposed of.

- **The term 'textile waste' is most often used with our discarded clothing** - maybe because this is the most visible point in the value chain. Many of our unwanted garments become a waste not because they are damaged or worn beyond repair, but simply because we don't want them.
- **Microplastics** released during washing, and energy used to wash our clothes, are other two big sources of pollution.
- **What about unsold garments in shops?** Where do they go, what's done with them? So-called deadstock (unsold garments in shops) is unsellable stock which as a common practice is damaged, burnt or disposed of so the brands can continue stocking with new trends.
- **A considerable amount of clothing ends up in the Global South** as a commodity in the second hand clothing business with significant impact on local society, health and environment (to explore more read [this article](#)).



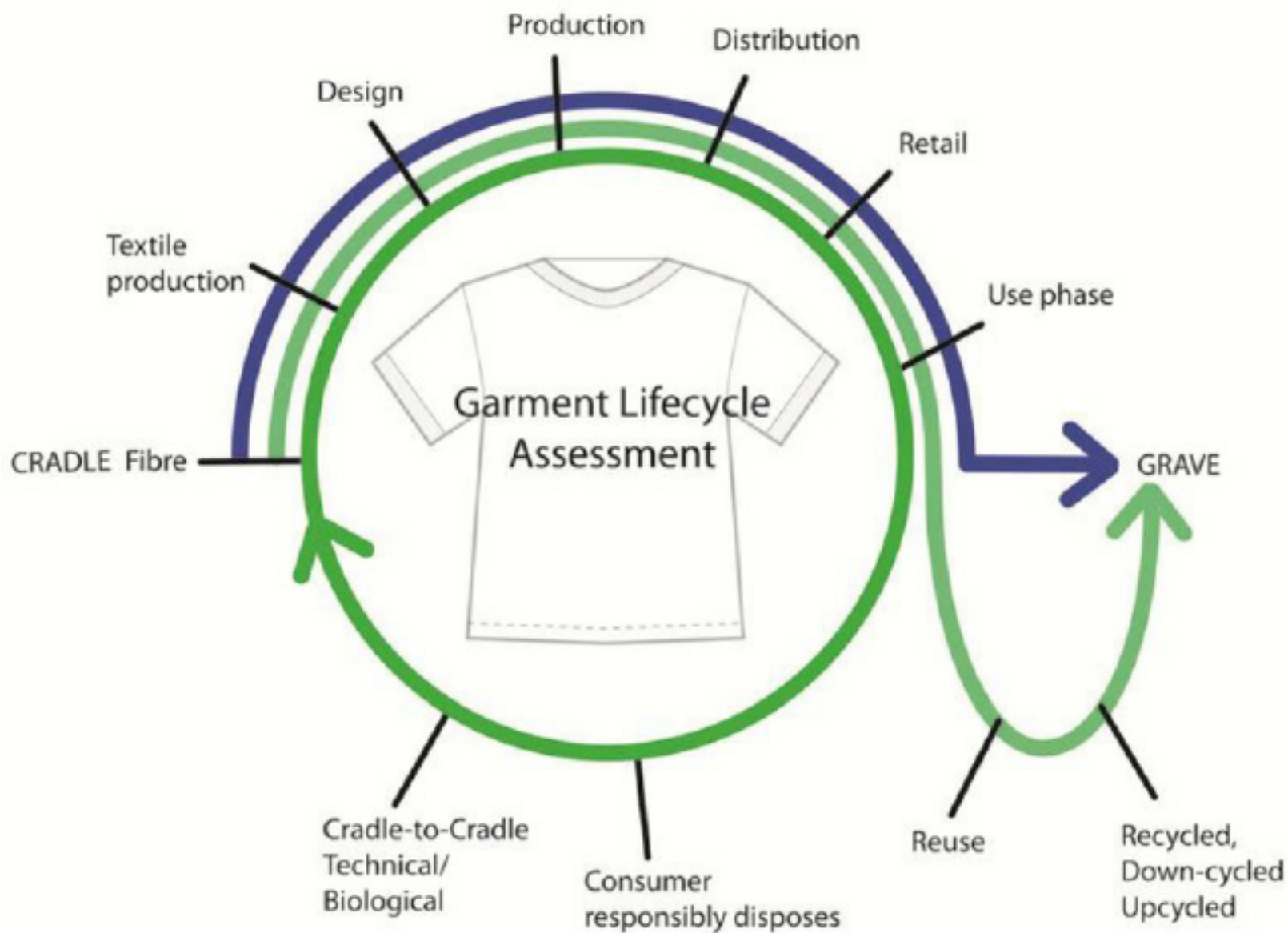


Photo credit: [Research gate](#)

Everywhere in value chain (pre- or post-consumer) we have these two main sources of waste and pollution:

- transport between garment value chain points (imagine all those tracks and ship containers travelling from farmers in India to weaving and dyeing in China and then to garment sewing in Bangladesh to be shipped to shops in Europe, then collected and shipped to disposal – just to show a very simple sample!)
- packing of partially made or finished fashion garments (imagine the amount of plastic bags!)

Reflection

Now go back to the garment you picked from your wardrobe and revise your initial notes or drawing.

What did you change? What new information was added to your picture and what was taken out of the picture?

Now comes the hard part – think of solutions, how the waste and pollution could be reduced BY YOU.

Write it down or discuss in groups:

1 Which part of the fashion value chain can we influence as consumers/customers the most and how? How could we help reduce waste and pollution? Can we help by asking brands and producers about production of our clothes?

2 What can we influence as citizens? Can we help by being active, talking to policy and decision makers, taking part in legislation changes, and simply campaigning for it?



Resources

Dobilaite et al. Investigation of current state of pre-consumer textile waste generated at Lithuanian enterprises. 2017. Available at: https://www.researchgate.net/profile/Milda_Juciene/publication/318127190_Investigation_of_current_state_of_pre-consumer_textile_waste_generated_at_Lithuanian_enterprises/links/5de79b7f92851c8364601344/Investigation-of-current-state-of-pre-consumer-textile-waste-generated-at-Lithuanian-enterprises.pdf

Julia E.DeVoy et al. Post-Consumer textile waste and disposal: Differences by socioeconomic, demographic, and retail factors. 2021. Available at: <https://www.sciencedirect.com/science/article/pii/S0956053X21005390>

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Tristan Roberts. Defining Recycled Content. 2008. Available at: <https://www.buildinggreen.com/primer/defining-recycled-content>

Quantis. Measuring Fashion: Environmental Impact of the Global Apparel and Footwear Industries Study. 2018. Available at: <https://refashion.fr/eco-design/sites/default/files/fichiers/Measuring%20Fashion%20Environmental%20Impact%20of%20the%20Global%20Apparel%20and%20Footwear%20Industries%20Study.pdf>

Alice Payne. The Life-cycle of the Fashion Garment and the Role of Australian Mass Market Designers. 2011. Available at: https://www.researchgate.net/figure/Garment-Life-cycle-Assessment_fig1_267205505

Hannah Downey. Waste Withing the Clothing Value Chain. 2018. Available at: <https://downey.net/2018/07/25/waste-within-the-clothing-value-chain/>

For further reading on textile waste, please see:

[Stop Waste Colonialism](#), an initiative by The OR Foundation

[Trashion](#) by Changing Markets Foundation

[Textile Mountain](#): The Hidden Burden of our Fashion Waste by European Environmental Bureau

[The Fast Fashion Graveyard](#) in Chile's Atacama Desert

[Filipino business woman upcycles plastic waste into fashion](#) by United Nations Environmental Programme



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