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Rs of Sustainability (R-Hierarchy)

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*including food and non-tangible products (services or systems)

Source: what design can do

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REFUSE

Refusing means to not design or consume (new or even second hand) garments or textiles when not necessary.
Is the product needed? What does to bring? What purpose does it serve?
Refuse offers which encourage overconsumption (e.g. buy one get one free)

Source: circle waste

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REDESIGN

Redesign involves rethinking the design of products, systems, or services to significantly reduce environmental impact from the outset. It focuses on creating solutions that are inherently more sustainable — by using fewer resources, eliminating waste, extending product life, and enabling circularity.

In fashion, this means designing garments for **disassembly and recyclability**. Choosing **mono-materials** or **bio-based fabrics** to improve end-of-life outcomes. Creating **modular or adjustable clothing** to extend usability. Eliminating unnecessary components (e.g., zippers, blends) that hinder recycling.

Source: Adam Fard

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RETHINK

Rethinking involves a fundamental re-evaluation of our assumptions and practices related to production and consumption, beyond adjusting existing processes and seeks to transform how products, services, and systems are conceived. This means questioning established norms, supply chains, consumption habits, and business models—to identify innovative approaches that reduce environmental impact.

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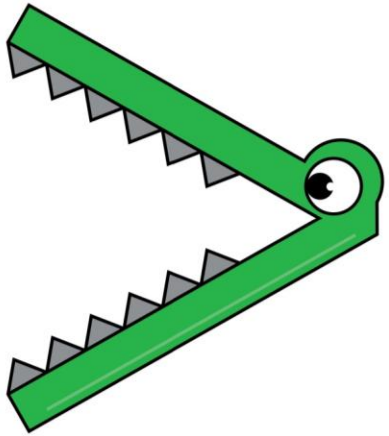
REDUCE

Reduction focuses on minimising resource consumption and waste generation right from the beginning. It means using fewer materials and energy during production and consumption, thereby lowering the overall environmental impact. This principle emphasises doing less to create more value, ensuring that sustainability starts with a conscious effort to reduce demand and environmental footprint. It can mean reducing the number of products a company makes annually, tackling systemic issues such as overproduction and stock, or it could also apply to how much consumers buy each year.



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REUSE

This approach highlights the importance of designing products for durability and ease of maintenance, supporting a shift from a linear to a circular economic model. Reuse involves extending the life of a product or component by using it again for the same or a similar purpose without significantly altering its structure. This approach maximizes the utility of the product and reduces the need for new resources.

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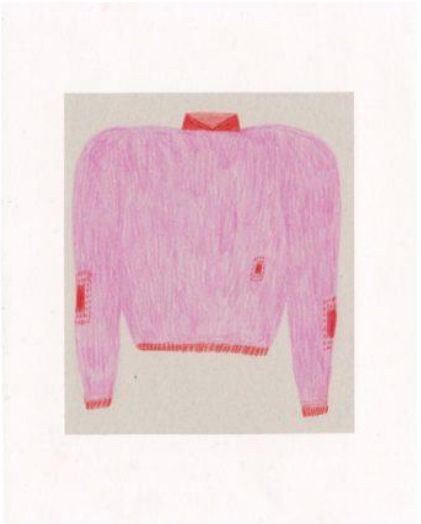
REPAIR

Repairing involves restoring a product's functionality by fixing damage or wear, rather than discarding or replacing it. It extends the useful life of a product through maintenance and targeted fixes. This saves the resources and energy that would be required for manufacturing new products, ensures things remain in use longer, reducing waste, and often costs less than buying a new product, benefiting both consumers and the environment.

Repairing can be done by the user, given the proper knowledge, instruction, tools and resources or be provided as a service to users by brands - external brand collaborators or independent makers.



Source: Molly Martin, The Art of Repair

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REFURBISH

Refurbishing involves restoring a used product to a good working condition by cleaning, repairing, and sometimes upgrading its components. This process aims to extend the product's useful life and value without manufacturing a new one. This reduces resource consumption and often increases the resale or functional value of the product, making it economically attractive for both sellers and buyers.

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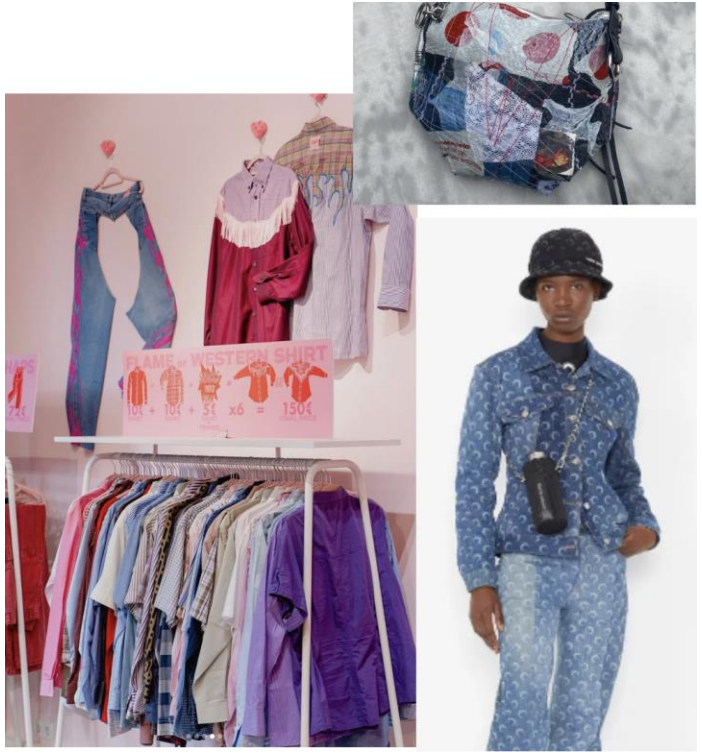
REMANUFACTURE

Remanufacture involves taking an end-of-life product and restoring it to a condition that meets or exceeds its original performance standards, often through complete disassembly, cleaning, repair, and reassembly. This goes beyond simple repair by systematically rebuilding the product, often incorporating updated components or technologies. Remanufacturing encourages businesses to offer remanufactured products, contributing to a circular economy by keeping products and components in use for longer periods.

Remanufacture strategies address end-of-life products with thorough, quality-driven processes that create sustainable alternatives to traditional manufacturing.



Source L-R: Hurra Pang Pang, Valentine Tinchant, Marine Serre

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REPURPOSE

Repurposing involves adapting an existing product or material for a new function that differs from its original purpose, without significant processing or re-manufacturing.

Transforms items in inventive ways to extend their lifecycle, often creating higher value through upcycling. This requires minimal additional resources since the material is given a new life with little alteration.

This approach can be applied across various industries to innovate product functionality and design. This approach not only maximises resource efficiency but also fosters innovation in sustainable product design.

Source: feminista via Reddit

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RECYCLE

Recycling involves processing waste materials to recover valuable raw materials, which are then used to manufacture new products. This transforms discarded products into feedstocks, such as pulping fibers, or chemically processing plastics. It provides an end-of-life option for materials that can't be reused or repurposed, helping to reduce landfill waste. While essential for closing the loop, recycling is seen as a less preferable option compared to reducing consumption or extending product lifespans through reuse and remanufacturing, because its is often energy-intensive and can result in lower-quality materials (downcycling).

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RECOVER

Recovery involves extracting energy or residual materials from waste that can no longer be directly reused, repurposed, or recycled. It typically occurs at the end of a product's lifecycle.

Recovery often involves processes like incineration with energy recovery (waste-to-energy) or anaerobic digestion, converting waste into usable energy. This may include composting organic waste or chemical processes that recover limited raw materials from mixed or contaminated streams.

Recovery is considered a lower-priority option compared to reuse, remanufacturing or recycling because it usually involves a loss of material quality and has potential environmental impacts including greenhouse gas emissions.


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