WISE FASHION

2024-2-RO01-KA220-YOU-000286513

Learning Opportunities to Optimize Skills in Recycled Fashion Applications Towards a Waste Conscious Industry - WISE FASHION

MODULES

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Learning Opportunities to Optimize Skills in Recycled Fashion Applications Towards a Waste Conscious Industry

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TOPIC: Introduction to Recycled Fashion and Entrepreneurial Mindset and Innovation

Prepared by: ASDIT

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Introduction to Recycled Fashion and Entrepreneurial Mindset and Innovation

1. Introduction:

Global fashion industry is one of the main contributions to waste and pollution with its current format. It is responsible around 10% of global carbon amissions and 20% of waterwaste. (Niinimäki et al., 2020). Rise of fast consuming and fast fashion, detoriarated problems like poor labor condition, overproduction and resource scarcity. On the contrary, recycled fashion offers an alternative to this action via emphasizing reuse, upcycling and circular production systems. In that regard, recycled fashion emerges as combination of creative innovation and environmental responsibility. It revives discarded garments and textiles into fashionable items. Together with young people's raising consciousness, and youth driven initiatives in sustainable fashion reduce waste and also foster community-level entrepreneurship. (Chen et al.2021)

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Introduction to Recycled Fashion and Entrepreneurial Mindset and Innovation

2. Theoretical Framework

This concept of recycled fashion roots back to circular economy model, that aims minimizing waste through repair, reuse and material recovery(Geissdoerfer et al., 2017). This in other words, includes designing garments with recyclability and longevity via using biodegradable and recovered materials. (Ellen MacArthur Foundation, 2019).Moreover, the entrepreneurial mindset—defined by curiosity, resilience, opportunity recognition, and value creation (Kuratko et al., 2021)—is central to implementing innovative sustainability practices. Young entrepreneurs in recycled fashion combine ecological ethics with market viability, demonstrating that profitability and environmental responsibility can coexist.

Innovation in recycled fashion also is based on design thinking framework (Brown, 2009), emphasizing empathy, experimentation, and iterative problem-solving. Through design thinking, youth can reimagine waste materials as creative resources, transforming “end-of-life” products into new cycles of use.

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INTRODUCTION TO RECYCLED FASHION AND ENTREPRENEURIAL MINDSET AND INNOVATION

3. History of Recycled Fashion

The reuse of textiles is not a new phenomenon and it dates back to centuries. Historically, clothing was repaired, repurposed, or passed down rather than discarded. However, due to industrialization and the invention of synthetic fibers in the 20th century, a dramatic change in consumption patterns emerged (Fletcher, 2014). Emergence of recycled fashion concept coincides with 1990s, and the growth of eco-conscious movements. For disseminating this practice, digital platforms and environmental activism had to be waited, which took place in the 21st century.Brands such as Patagonia and Stella McCartney pioneered take-back programs and eco-material innovation (Pedersen & Andersen, 2015).

Parallel to these developments, youth-led upcycling movements were more often encountered on social media, with small-scale entrepreneurs transforming vintage or discarded items into fashionable, personalized creations (Gwilt, 2020).

According to Chen et al. (2021), recycled fashion's evolution aligns with the circular economy's principles of longevity, repairability, and material regeneration. Today, recycled fashion is not only a creative movement but it also provides local employment opportunities besides sustainable economic development.

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4. Innovative Aspects of Recycled Fashion

Understanding of innovative recycled fashion signifies more than material recovery. It requires rethinking producing and consuming models through social, entrepreneurial and technological aspects.
Material innovation: Advancements in chemical recycling now allow polyester or cotton blends to be separated and reconstituted into new fibers (Sandin & Peters, 2018).

- Business innovation: Start-ups adopt rental, resale, or repair service models that extend garment life cycles and reduce overproduction (Joyner Armstrong et al., 2022).
- Social innovation: Grassroots workshops, repair cafés, and local cooperatives encourage community participation in textile reuse and circular design (Hirscher & Niinimäki, 2018).

Entrepreneurial innovation is especially related with youth. Kuratko et al. (2021) highlights that following an entrepreneurial mindset allows young people to detect sustainability challenges as opportunities. Via the usage of creativity and digital tools, youth entrepreneurs can turn upcycling into viable microbusinesses while pointing out to social and ecological concerns.

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5.Best Practices and Case Studies

In this section, various local and international practices will be given as examples to analyse integration of recycled fashion with entrepreneurshio and innovation.

- Renewcell (Sweden): A pioneering company that chemically recycles cotton waste into new cellulose fibers, exemplifying circular textile innovation (Sandin & Peters, 2018).
- Patagonia's Worn Wear Program: Encourages customers to repair, resell, or recycle their garments, aligning profitability with environmental values (Pedersen & Andersen, 2015).
- Mardin İpekyolu Women's Cooperative (Türkiye): Produces traditional handmade soaps and eco-friendly textile crafts, showing how women's cooperatives can merge cultural heritage with sustainable entrepreneurship (Ünal & Tekin, 2023).
- Samandağ Women's Cooperative: Based in Hatay, Türkiye, this cooperative upcycles laurel- and olive-based materials into cosmetic and textile products, blending ecological awareness with regional identity.

These cases underscore that innovation often arises from local contexts where limited resources inspire creative, sustainable solutions.

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6. Learning Activities

The 30-minute session integrates theory and practice through active participation:

- PowerPoint Presentation (10 min):
- Slides include data visuals on fashion waste and sustainable alternatives.They are the Powerpoint versions of this content, and can be used for educational purposes by giving adequate references.
- Documentary and Interview Analysis (10 min):
- Readers view the following documentary clip featuring entrepreneurs and designers who utilize recycled textiles. Then discuss the matter with their peers.

Link to documentary:https://www.youtube.com/watch?v=7i0QMnz4ExY

- Eco-Friendly Wardrobe Competition (10 min):
- Readers are challenged to organize their wardrobe sustainably, take photos of reused or repaired garments, and upload them with short reflections on social media. This gamified activity reinforces personal responsibility and awareness.

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7.Evidence of Learning and Assessment

Evidence of Learning:

- Ability to identify sustainable fashion practices and differentiate them from traditional approaches.
- Demonstrated motivation toward eco-conscious behavior and purchasing decisions.
- Awareness of entrepreneurship opportunities within recycled fashion.

Assessment Methods:

- Short question-and-answer and feedback session at the end of class.
- Evaluation of competition submissions based on creativity, sustainability, and reflection quality.- Participants should tag our official project social media channels. Winners will be published on our official project website.
- Observation of active participation during the module.

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INTRODUCTION TO RECYCLED FASHION AND ENTREPRENEURIAL MINDSET AND INNOVATION

Multiple Choice Questions:

Question 1:
Which of the following best describes the main goal of recycled fashion?
A) To increase fast fashion consumption through digital platforms
B) To promote reuse, upcycling, and circular production while combining creativity with environmental responsibility
C) To replace all natural fibers with synthetic materials
D) To limit clothing production to luxury brands only
Answer: B

Question 2:
The concept of recycled fashion is closely linked to which economic model?
A) Linear economy
B) Sharing economy
C) Circular economy
D) Gig economy
Answer: C

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Question 3:

Which of the following is NOT listed as an innovative aspect of recycled fashion?

A) Material innovation (e.g., chemical recycling of fiber blends)

B) Business innovation (e.g., rental and resale models)

C) Social innovation (e.g., repair cafés and cooperatives)

D) Complete elimination of all textile production

Answer: D

Question 4:

Which statement accurately reflects the historical development of recycled fashion?

A) Recycled fashion started in the 18th century with industrialization

B) It emerged in the 1990s alongside eco-conscious movements, with youth-led upcycling gaining prominence via social media

C) Fashion recycling only became possible after the invention of polyester in 1950

D) Digital platforms were not influential in promoting recycled fashion

Answer: B

Question 5:

Which of the following case studies illustrates local innovation combining cultural heritage and sustainability?

A) Renewcell (Sweden)

B) Patagonia's Worn Wear Program

C) Mardin İpekyolu Women's Cooperative (Türkiye)

D) Fast fashion brands in global markets

Answer: C

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INTRODUCTION TO RECYCLED FASHION AND ENTREPRENEURIAL MINDSET AND INNOVATION

8.CONCLUSION

Recycled fashion is at the intersection of creativity, sustainability, and entrepreneurship. throughout this module, students are presented to the fundamental principles of recycled fashion, its historical roots, and the potential for innovative business ventures. by merging critical thinking with practical activities, learners not only gain theoretical knowledge but also develop, eco-conscious behaviors.

in the long term, such educational initiatives strengthen young people's role in the transition toward a circular economy. this makes wise fashion a useful tool for positive environmental and social change.

hence, in the next section, basics of recycled fashion will be further ellaborated to provide readers further information.

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IntroductIon to Recycled FashIon and EntrepreneurIal MIndset and InnovatIon

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TOPIC: Basics of Design for Recycled Fashion

Prepared by Alba Iulia Municipality (RO)

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1.1 A Quick Introduction

The modern fashion industry is a global, multi-billion dollar enterprise that encompasses everything from design and manufacturing to advertising and retail. It's a complex system with four main levels: raw materials production, garment production by designers, retail sales, and promotion. Today, technology plays a huge role in the industry, from computer-assisted design to high-tech fabrics with properties like moisture-wicking and UV protection.

The fashion world is also a powerful form of self-expression. As fashion designer Katherine Hamnett said, "Clothes create a wordless means of communication that we all understand." Trends are influenced by a wide range of sources, including music, movies, celebrities, and even street style.

The fashion industry has a significant impact on the environment. Creating new clothes from scratch requires vast amounts of resources and generates a lot of pollution. Producing new textiles, especially cotton, requires immense amounts of water. For example, it can take thousands of gallons of water to grow enough cotton for just one T-shirt and a pair of jeans.

This generates impressive quantities of textiles that are manufactured year after year. But what happens to textiles that aren't bought in time and become outdated? This is where the concept of recycled fashion comes in.

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1.1 A Quick Introduction

Recycled fashion is the practice of creating new clothing and accessories from old, discarded materials. It's a key part of the larger circular economy, which aims to minimize waste and make the most of resources. Instead of a "take-make-dispose" model, recycled fashion promotes a "reuse-reduce-recycle" approach. The average person throws away a large amount of clothing and textiles each year. Much of this waste ends up in landfills, where it can take hundreds of years to decompose, releasing harmful greenhouse gases in the process. Recycled fashion keeps these items out of landfills and gives them a new life.

Beyond the environment, recycled fashion also has a positive impact on society and the economy. By choosing recycled or upcycled fashion, consumers are making a powerful statement. They are supporting a more ethical and sustainable way of life and encouraging the fashion industry as a whole to change its practices.

Recycled fashion isn't just about sewing a few random pieces of material together. It is an art form that combines creativity, vision, and technical skills. In this module, we will explore how to transform an idea into a finished product that is both beautiful and durable.

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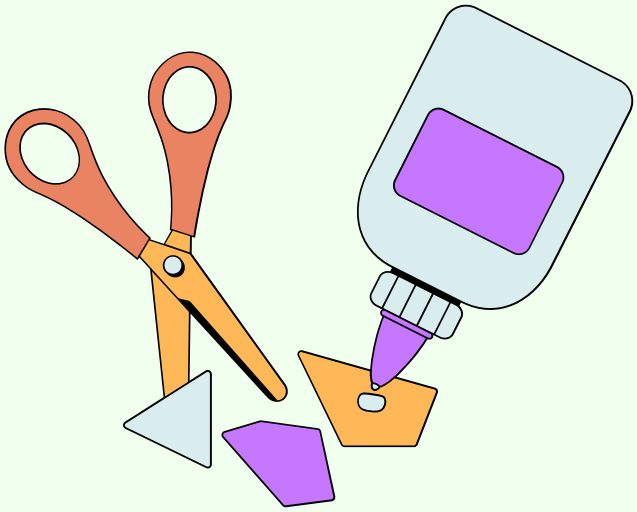
1.2 Creative Vision and Aesthetics

a) Find inspiration everywhere: Recycled fashion is based on the ability to see potential where others see waste. Draw inspiration from the textures, colors, and shapes of the materials you have available. An old wool coat can become a short jacket, or a collection of old T-shirts can be transformed into a patchwork blanket.



b) Define a story: Every garment you create can tell a story. Ask yourself: "Where does this material come from?" or "What kind of style do I want to achieve?" A clear vision will help you make consistent design decisions.

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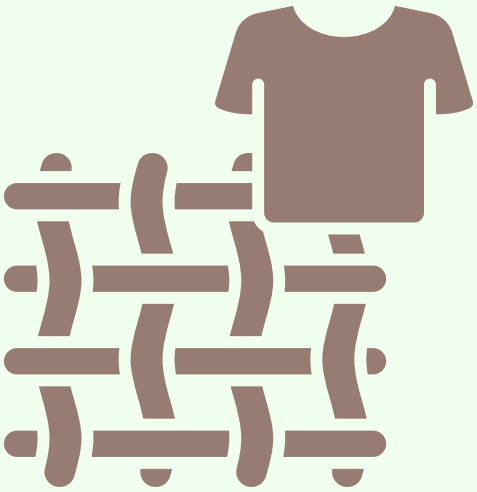
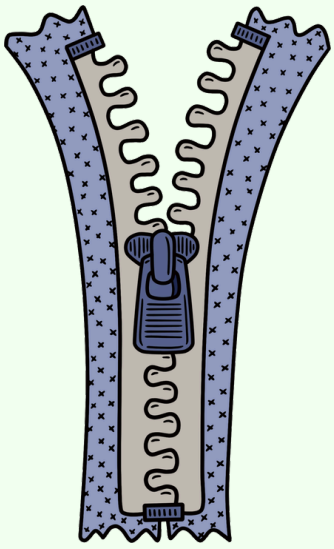
1.3 Durable Design and Functionality

a) **Quality of stitches:** A successful design is not just visually appealing; it's also resilient. Use strong and durable stitches to ensure the finished product will last. Choose stitches like a double stitch or zig-zag stitch in high-stress areas, such as side seams.

b) **Reusing existing elements:** An essential principle of durable design is to make the most of what you already have. Keep original buttons, zippers, pockets, and cuffs. These can add interesting details and minimize waste.





c) **Versatility:** Create pieces that can be worn in multiple ways. A dress that can also be worn as a skirt, or a reversible jacket, adds value and encourages extended use.

By combining these principles, you will be able to create recycled fashion pieces that are not only eco-friendly but also original, durable, and have a personal aesthetic.

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2.1 Sourcing Your Materials

Where to find materials for your recycled fashion projects?

- **Personal Closets:** The easiest place to start is at home. Old T-shirts, jeans, or even blankets that are no longer used can be repurposed.

- **Family and Friends:** A fun way to source materials is by organizing a clothing swap or simply asking family and friends for their unwanted items.

- **Thrift Stores or Second hand boutiques:** Flea markets or second-hand stores are excellent sources where you can discover quality materials at a low price.

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2.2 Evaluating Materials

Once you've found a potential garment, it's crucial to evaluate its suitability for your project. This prevents wasting time and effort on damaged or unworkable materials.

Fabric Composition: Natural Fibers

Natural fibers are derived directly from living organisms, either plants or animals. They are the oldest type of textile and have been used for thousands of years. They are valued for their comfort, breathability, and sustainability.

Origin: Plants (cellulose-based) or animals (protein-based).

Examples:

- Plant-based:
  - Cotton, linen, hemp.
- Animal-based:
  - Wool, silk, cashmere.

Key Characteristics:

- **Biodegradable:** They break down naturally over time.
- **Breathable**: Their porous structure allows air to circulate, making them comfortable to wear.
- **Absorbent**: They soak up moisture (like sweat), which can be good for towels but also means they take longer to dry.
- **Renewable:** They come from sources that can be regrown or raised.

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2.2 Evaluating Materials

Fabric Composition: Synthetic Fibers

Synthetic fibers are man-made through a chemical process, primarily using petroleum-based polymers. They were developed to be more durable, affordable, and versatile than their natural counterparts.

Origin: Petroleum by-products and other chemicals.

Examples:

- Polyester, nylon, acrylic, spandex

Key Characteristics:

- **Non-biodegradable:** They do not break down and can sit in landfills for hundreds of years.
- **Water-Resistant:** They repel water, making them popular for activewear and outerwear.
- **Durable:** They are very strong, resistant to wrinkles, and less likely to shrink or tear.
- **Shed Microplastics:** With every wash, they shed tiny plastic fibers that pollute our waterways and oceans.

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2.2 Evaluating Materials

Comparison Table

Feature	Natural Fibers	Synthetic Fibers
Origin	Plants or Animals	Petroleum-based chemicals
Breathability	High (very breathable)	Low (can feel "stuffy")
Absorbency	High (absorbs moisture)	Low (repels moisture)
Durability	Varies (can be less durable)	High (resistant to tears, wrinkles)
Environmental Impact	Generally biodegradable	Non-biodegradable, sheds microplastics
Cost	Often more expensive to produce	Generally cheaper to produce

In the context of recycled fashion, understanding this difference is crucial. Upcycling natural fibers is often a good choice because they are easier to dye and work with, while repurposing synthetic fibers is a great way to prevent them from ending up in a landfill and polluting the environment for centuries.Natural fibers are generally easier to work with, especially for dyeing and certain sewing techniques.

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2.2 Evaluating Materials

Condition:

Conducting a thorough check of a garment is a crucial step to ensure your upcycling project is a success. Here is a step-by-step guide on how to inspect for major flaws.

The Full Visual Scan. Start by giving the garment a full visual scan, both inside and out. It's best to do this in good lighting, as some flaws are only visible in natural light.

- **Front and Back**: Look for large, obvious stains on the front, back, and any visible parts of the garment.
- **High-Wear Areas**: Pay close attention to areas that get a lot of friction and stress, such as the underarms, collars, knees, and cuffs. These are common spots for discoloration, thinning fabric, and pilling (the small balls of fiber that form on the surface).
- **Turn it Inside Out:** Flip the garment inside out to check the lining, seams, and hidden areas. You'll often find hidden stains, rips, or signs of poor quality on the inside.

The Fabric and Seam Check. This is where you feel the material and inspect the construction.

- **Tears and Holes:** Feel for tears and holes, especially along the seams. Give the seams a gentle tug to see if they are secure. A loose seam is an easy fix, but a large rip in the middle of the fabric can be difficult to mend and may make the piece unusable.

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2.2 Evaluating Materials

Condition:

- Excessive Wear: Rub the fabric between your fingers. Does it feel thin or flimsy? This is a sign of excessive wear. While a few small pills can be removed, widespread pilling can indicate the fabric is at the end of its lifespan.
- Stretching: Check elastic areas like waistbands and cuffs. Stretch the elastic and see if it snaps back to its original shape. If it stays stretched out, the elastic is "dead" and will need to be replaced.

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2.2 Evaluating Materials

Condition:

The Hardware and Details Check. Don't forget to examine all the small components that make the garment functional.

- **Zippers:** Test every zipper. Make sure it glides smoothly and doesn't get stuck. A broken zipper is a manageable repair, but it is an extra step and cost to consider.
- **Buttons and Snaps:** Check that all buttons are present and securely attached. Look for any loose threads or missing snaps.

The Smell Test. Finally, give the garment a quick smell check. A strong, lingering odor—like smoke or mildew—is often a sign that the item has been stored improperly and the smell may be impossible to remove, even with washing.

By following this checklist, you can confidently evaluate a garment and decide if it's a valuable "treasure" worth transforming.

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Potential for Transformation: Encourage a creative mindset. The key question to ask is: "What could this be?" A long skirt could become a top, or a pair of jeans could be turned into a tote bag. This is about seeing the potential of the fabric itself, not just the original item.

3.1 The Art of Deconstruction

Before you can build something new, you often need to take an existing garment apart. This process is called deconstruction. It's about being strategic and careful to save as much usable material as possible, including fabric panels, zippers, buttons, and other hardware.

Key Tools:

- **Seam Ripper:** This is your most important tool. It's a small, handheld device with a hook-like blade that is perfect for snipping threads without damaging the fabric.
- **Fabric Scissors:** These are for cutting larger sections and should be used only on fabric to keep them sharp.

How to Deconstruct:

1. **Start at the Seams**: Use your seam ripper to carefully cut the threads holding the pieces of fabric together. Begin at a point where the stitching is easy to access, such as the bottom of a hem or the end of a sleeve.
2. **Separate the Components:** As you rip the seams, separate the main fabric panels, zippers, pockets, and collars.
3. **Sort and Save:** Put all reusable items like buttons, zippers, and clasps into a separate container for future projects. Save all fabric scraps; even small pieces can be used for things like patches or stuffing.

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3.2 Simple Upcycling Ideas for Beginners

Now that you have your materials, here are some easy projects to get you started.

- **T-shirt to Tote Bag (No-Sew):**
  - Cut the sleeves off a large T-shirt.
  - Cut the collar off to create a wider opening.
  - Cut the bottom of the shirt into strips and tie the front and back strips together to create a solid bottom. You now have a simple tote bag.
- **Old Jeans to Shorts:**
  - Cut the legs off a pair of old jeans to your desired length.
  - To get a classic frayed look, simply throw them in the washing machine.
- **Sweater to Pillow Cover:**
  - Cut a sweater into a square or rectangle, leaving the hem at the bottom for one of the sides.
  - Sew the sides together, leaving one end open.
  - Stuff with a pillow or fill it with old fabric scraps. Sew the final side shut.
- **Fabric Scraps to Scrunchies:**
  - Cut a strip of fabric.
  - Sew the long ends together to form a tube.
  - Thread a piece of elastic through the tube and tie the ends of the elastic.
  - Sew the open ends of the fabric together.

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3.2 Simple Upcycling Ideas for Beginners

Recycled fashion is a transformative and creative process that re-imagines discarded materials, turning them into unique and valuable new pieces. It goes beyond simply reusing old clothes; it's about seeing the hidden potential within a seemingly worn-out item and giving it a new purpose.

This approach not only reduces waste and minimizes the environmental impact of the textile industry, but it also celebrates originality and resourcefulness.

By deconstructing and repurposing old garments, we can unlock an endless source of materials, whether it's turning a bulky wool sweater into a cozy scarf or transforming old jeans into a stylish tote bag. This practice is a powerful statement, proving that with creativity and care, we can create something beautiful and modern from the past.

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4.1. Beyond the Materials

We've learned how to find and deconstruct materials. Now, we'll focus on the two key principles that turn recycled materials into a successful garment: durable design and creative vision. It's not enough to simply patch something together; a truly upcycled piece should be strong enough to last and beautiful enough to be cherished.

4.2. The Principles of Durable Design

Durable design is the practice of creating a product that is built to last. For upcycled fashion, this means your creations will stand the test of time, fulfilling the core goal of sustainability.

- ***Reinforce the Weakest Points:*** Pay special attention to areas that experience the most stress, such as seams, buttonholes, and pockets.
- ***Choose the Right Stitches:*** Use strong stitches that won't easily unravel. For example, a backstitch is far more secure than a simple running stitch. For hems, a blind hem stitch can create a clean, durable finish.
- ***Consider the Fabric's Future:*** If you're joining a thick fabric to a thin one, the stronger fabric can tear the weaker one. Plan your design to use compatible materials or to reinforce the weaker fabric.

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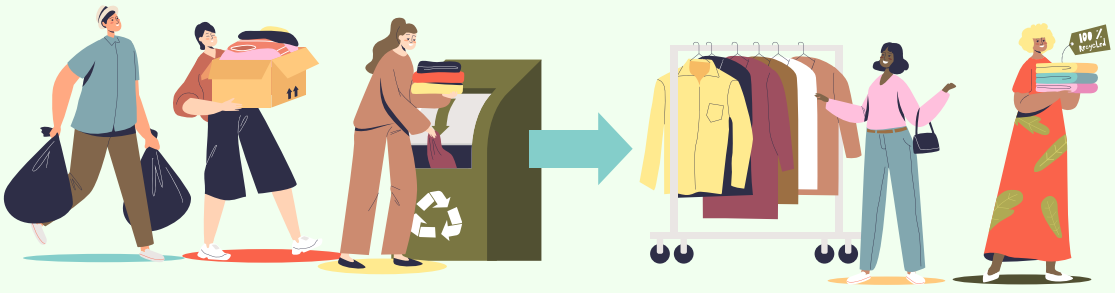
4.3. Cultivating Your Creative Vision

This is the artistic part of the process. Your creative vision is what makes a piece truly unique. It’s about transforming a simple object into something with a new identity.

- Find Your Inspiration: Look beyond just fashion. Find inspiration in art, nature, architecture, or even historical periods.
- Tell a Story: Think about the origin of your material. Could the faded denim tell the story of a well-loved pair of jeans? This narrative can guide your design choices.
- Sketch and Experiment: Don't be afraid to sketch out multiple ideas. Experiment with draping your deconstructed fabric and seeing what shapes and forms it naturally takes.

4.4. Combining Durability and Vision

The best upcycled pieces are a perfect blend of both principles. Your creative vision can guide you to a design that also happens to be durable. For example, a unique patch design can also serve to reinforce a weak spot, or a decorative overlock stitch can strengthen a seam. The two concepts are not separate but are two halves of a whole.



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Textile Industry Impact and the Circular Economy

- Ellen MacArthur Foundation. (2021). A New Textiles Economy: Redesigning Fashion's Future https://content.ellenmacarthurfoundation.org/m/6d5071bb8a5f05a2/original/A-New-Textiles-Economy-Redesigning-fashions-future.pdf
- European Environment Agency (EEA) / Eurostat https://www.eea.europa.eu/en
- United Nations Economic Commission for Europe (UNECE) Fashion and the SDGs: What Role for the UN?
- https://sepiastories.in/recycled-fashion/
- https://www.senreve.com/blogs/the-handle/recycled-fashion-guide?srsltid=AfmBOorJl7YXQmhRSEVJmVs5cwgyW8lvAeVQGmPjyA8ulpceKLrrqP-3

Sourcing and Materials

- https://textileexchange.org/app/uploads/2021/07/2019_MCI_Results-Guide.pdf
- https://www.aboutfarfetch.com/media/1677/farfetch-x-ngg_material-sourcing-guide_lr-compressed_lr.pdf
- https://howtohigg.cascale.org/higg-index-tools/higg-product-tools/higg-msi/dive-deeper/msi-guidance-and-definition/material-categories/

Durable Design and Upcycling

- Zero Waste Fashion Design by Timo Rissanen
- Aus, R., Moora, H., Vihma, M. et al. Designing for circular fashion: integrating upcycling into conventional garment manufacturing processes. Fash Text 8, 34 (2021) https://rdcu.be/eO9rf
- https://picvisa.com/textile-upcycling/

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WISE FASHION

Learning Opportunities to Optimize Skills in Recycled Fashion Applications Towards a Waste Conscious Industry

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Production Techniques, Upcycling, Sourcing and Procurement of Recycled Materials

Prepared by PRAMMER (AT)

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In today's world, the fashion industry stands at a crossroads, facing significant environmental and social challenges. As one of the largest global polluters, fashion contributes to resource depletion, pollution, and unethical labor practices. However, this era also presents an opportunity for transformation. Sustainable practices are no longer optional but essential for the industry's future. This module delves into the core strategies that can help reduce the fashion sector's ecological footprint, focusing on responsible production, innovative upcycling, and the thoughtful procurement of recycled materials.

By embracing these practices, the industry can transition toward a circular economy, balancing profitability with environmental and social responsibility.

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2.1 Slow Fashion Principles

Slow fashion represents a paradigm shift from the fast-paced, disposable culture of fast fashion. It emphasizes thoughtful design, ethical production, and the creation of garments that stand the test of time. Unlike fast fashion, which prioritizes high volumes and rapid turnover, slow fashion advocates for quality over quantity. This approach encourages designers and brands to focus on craftsmanship, durability, and timeless aesthetics, ensuring that each piece remains relevant and functional for years.

The concept of local sourcing and production is central to slow fashion. By manufacturing closer to home, brands can significantly reduce their carbon footprint, minimize transportation emissions, and support local economies. Additionally, slow fashion often adopts small-batch or made-to-order models, which not only reduce overproduction but also align production more closely with actual demand. This mindful approach fosters a deeper connection between consumers and their clothing, promoting a culture of appreciation and care for garments.

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2.2 Resource-Efficient Manufacturing

Innovation in manufacturing is key to reducing the fashion industry's environmental impact. Resource-efficient techniques focus on minimizing waste and optimizing the use of materials, energy, and water.

One such technique is zero-waste pattern cutting, where designers create patterns that utilize every inch of fabric, leaving no scraps behind. This method challenges traditional design processes but results in significant reductions in textile waste.

Another groundbreaking approach is digital prototyping. By leveraging 3D modeling software, designers can visualize and refine their creations virtually, reducing the need for physical samples. This not only cuts down on material waste but also accelerates the design process, allowing for faster iterations and more efficient production cycles.

Water conservation is also a critical focus in sustainable manufacturing. Technologies like waterless dyeing—such as CO_2 dyeing—eliminate the need for excessive water use and reduce harmful chemical runoff. These innovations not only preserve vital resources but also align with global efforts to combat pollution and climate change.

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Upcycling in Fashion

3.1 What Is Upcycling?

Upcycling is a transformative process that breathes new life into discarded materials, converting them into products of greater value and quality. Unlike traditional recycling—which often breaks down materials into their raw components—upcycling preserves and enhances the original material's integrity, reducing landfill waste and conserving resources.

This creative approach not only minimizes environmental impact but also fosters innovation, allowing designers to craft unique, one-of-a-kind pieces that tell a story. By embracing upcycling, the fashion industry can shift from a linear "take-make-waste" model to a circular system that celebrates sustainability and craftsmanship (McDonough & Braungart, 2002).

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3.2 Techniques & Applications

Upcycling in fashion is as diverse as it is imaginative. Designers employ a variety of techniques to repurpose materials, each offering its own aesthetic and functional benefits:

- **Deconstruction and Reassembly**: This technique involves carefully dismantling old garments and reconstructing them into entirely new designs. For example, a vintage denim jacket might be taken apart and reworked into a modern, tailored vest, or a collection of worn-out shirts could be transformed into a patchwork dress. Deconstruction encourages creativity and challenges designers to see potential in what others might discard.

- **Textile Collaging**: By combining different fabrics, textures, and patterns, designers create visually striking collages that celebrate diversity and individuality. This method often results in bold, eclectic pieces that reflect a mix of cultural and historical influences. Textile collaging is not only a sustainable practice but also a form of artistic expression, allowing for endless experimentation with color, shape, and form.

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- **Embroidery & Surface Design:** Adding embroidery, appliqué, or other embellishments can elevate the appearance of upcycled garments, concealing imperfections and introducing new visual interest. These techniques can turn a simple, worn-out piece into a luxurious, handcrafted item. Surface design also provides an opportunity to incorporate cultural motifs or personal storytelling into fashion, making each piece truly unique.

- **Dyeing & Overdyeing:** Overdyeing is a powerful way to refresh faded or stained fabrics, giving them a new lease on life. Natural dyes, in particular, can add depth and richness to textiles while avoiding the environmental harm associated with synthetic dyes. This technique is especially useful for creating cohesive collections from mismatched or discolored materials.

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3.3 Examples

Upcycling has gained traction across the fashion industry, with both emerging and established designers embracing its principles:

- Marine Serre: Known for her futuristic yet sustainable designs, Marine Serre incorporates upcycled fabrics into her luxury collections. Her signature crescent-moon prints often appear on reworked vintage materials, blending high fashion with environmental consciousness.
- RE/DONE: This brand has made a name for itself by transforming vintage Levi's jeans into modern, stylish fits. By deconstructing and reassembling classic denim, RE/DONE creates unique pieces that appeal to both sustainability advocates and fashion-forward consumers.

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4.1 Types of Recycled Textiles

The fashion industry is increasingly turning to recycled textiles as a way to reduce waste and minimize environmental impact. Recycled textiles can be broadly categorized into two main types:

- Post-Consumer Waste: These are materials sourced from products that have already been used by consumers, such as old clothing, household textiles, or accessories. For example, worn-out jeans can be transformed into insulation for buildings, or repurposed into new denim garments. This approach not only diverts waste from landfills but also reduces the demand for virgin resources.
- Post-Industrial Waste: This category includes leftover materials from manufacturing processes, such as fabric offcuts, yarn scraps, or unsold inventory. Many brands now collect these materials and reuse them in new products, such as accessories, upholstery, or even entirely new clothing lines. By repurposing post-industrial waste, companies can significantly cut down on production costs and environmental harm.

4.2 Popular Recycled Materials

The use of recycled materials is gaining traction as brands seek to align with sustainability goals and meet consumer demand for eco-friendly products. Some of the most popular recycled materials in fashion include:

- Recycled Cotton: Made from textile waste, recycled cotton is often blended with virgin cotton to enhance durability and softness. This material helps reduce water consumption and chemical use, making it a more sustainable alternative to conventional cotton.

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- Recycled Polyester (rPET): Derived from plastic bottles, rPET is a versatile and durable material that is widely used in activewear, outerwear, and accessories. The process of converting plastic bottles into polyester fiber is energy-efficient and significantly reduces plastic pollution.

- Recycled Wool: Old wool garments and manufacturing scraps are reprocessed into new yarns, preserving the natural properties of wool while reducing waste. Recycled wool is often used in knitwear, coats, and blankets, offering warmth and sustainability.

- Recycled Nylon: Sourced from discarded fishing nets and industrial plastic waste, recycled nylon is used in swimwear, hosiery, and outerwear. Brands like ECONYL® have pioneered the regeneration of nylon waste into high-quality fibers, helping to clean up oceans and landfills.

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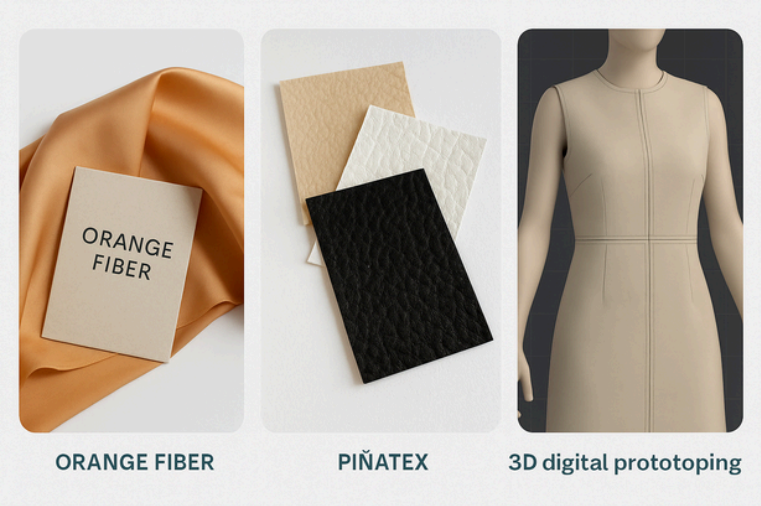
4.3 Innovative Bio-Based Materials

Innovation in sustainable materials is driving the fashion industry toward a more eco-conscious future. Bio-based materials, derived from renewable resources, are gaining popularity for their minimal environmental impact and unique properties:

- Orange Fiber: Created from citrus by-products, Orange Fiber is a silky, sustainable fabric used in luxury fashion. This material not only reduces agricultural waste but also offers a cruelty-free alternative to silk.

- Piñatex: Made from pineapple leaf fibers, Piñatex is a non-woven textile that mimics leather. It is lightweight, breathable, and biodegradable, making it an ideal choice for accessories and footwear.



4.4 Certifications and Labels

As consumers become more conscious of sustainability, certifications and labels play a crucial role in verifying the authenticity of recycled and sustainable materials. Some of the most recognized certifications include:

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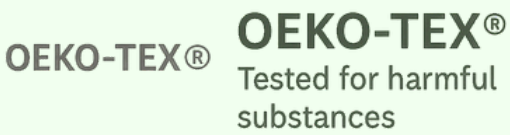
- Global Organic Textile Standard (GOTS): GOTS certifies that textiles are made from organic fibers and produced under environmentally and socially responsible conditions.

- Global Recycled Standard (GRS): This certification ensures that products contain recycled materials and that the entire production process adheres to strict environmental and social criteria.

- OEKO-TEX®: A globally recognized label, OEKO-TEX® certifies that textiles are free from harmful substances, making them safe for both consumers and the environment.

- Cradle to Cradle Certified®: This certification evaluates products based on their environmental and social performance across five categories: material health, material reuse, renewable energy, water stewardship, and social fairness.



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5.1 Ethical Sourcing Practices

Ethical sourcing is at the heart of sustainable fashion, ensuring that every material and product is acquired in a way that respects both people and the environment. This approach goes beyond compliance—it reflects a commitment to social responsibility and environmental stewardship.

Transparency is key, as brands must establish full traceability across their supply chains, from raw material extraction to final assembly. This not only empowers consumers to make informed choices but also holds brands accountable for their impact.

Fair labor practices are equally critical, with brands increasingly partnering with suppliers who guarantee fair wages, safe working conditions, and respect for workers' rights, often aligning with standards set by organizations like the Fair Labor Association.

Regular supplier audits play a vital role in maintaining these standards, helping to identify areas for improvement and ensuring long-term, ethical partnerships.

5.2 Local & Regional Procurement

Sourcing materials and manufacturing locally or regionally offers multiple benefits for both the environment and local economies:

- Reduced Carbon Footprint: Minimizes transportation emissions and boosts regional economies.
- Shorter Supply Chains: Enhances responsiveness, quality control, and supplier relationships.
- Cultural Preservation: Collaborates with local artisans, preserving traditional craftsmanship and heritage.

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PROCUREMENT DECISION TREE

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5.3 Partnerships & Collaborations

Sustainable fashion benefits greatly from collaborations. By partnering with recyclers, NGOs, material innovators, and even other fashion brands, brands can develop closed-loop systems and access new sustainable resources:

- Recyclers and Waste Management Companies: Partnerships with organizations specializing in textile recycling can help brands turn waste into new materials.
- NGOs and Industry Initiatives: Organizations like Fashion for Good and the Sustainable Apparel Coalition provide platforms for brands to share knowledge, access funding, and adopt best practices in sustainability.
- Material Innovators: Collaborating with startups and research institutions focused on sustainable materials can give brands access to cutting-edge innovations.

Integrating Circularity in Fashion Systems

6.1 Closed-Loop Systems

Closed-loop systems redefine fashion by keeping materials in use for as long as possible, drastically reducing waste and resource consumption. This approach relies on design for disassembly, where garments are created to be easily taken apart, allowing materials to be reused or recycled. Brands also implement take-back schemes, encouraging consumers to return worn items for repair, resale, or recycling—initiatives. Additionally, material recovery technologies, such as fiber-to-fiber recycling, enable old textiles to be transformed into new, high-quality fabrics, further closing the loop and minimizing environmental impact.

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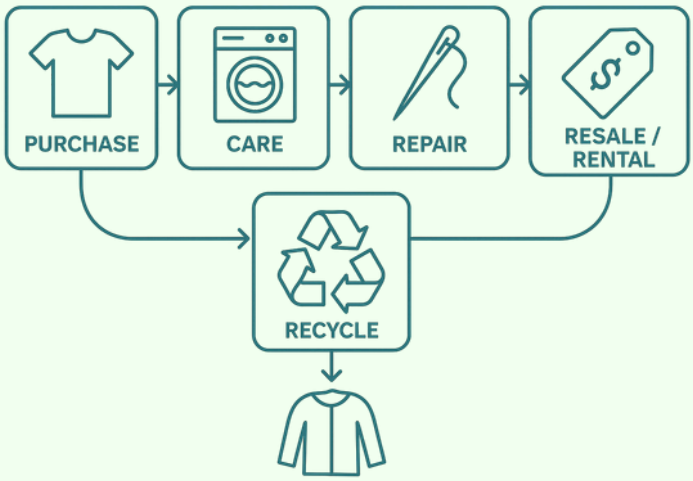
6.2 Extended Product Lifecycles

Extending the lifecycle of fashion products is essential for reducing waste and promoting sustainability. Strategies to achieve this include:

- Repair Services: Brands are offering repair services to encourage consumers to mend and maintain their garments rather than discarding them.

- Resale & Rental Models: The rise of resale platforms like ThredUp and The RealReal, as well as rental services like Rent the Runway, is making it easier for consumers to access fashion without owning it outright. These models keep products in circulation and reduce the demand for new items.

- Consumer Education: Educating consumers about sustainable care practices—such as washing clothes at lower temperatures, air-drying, and proper storage—can significantly extend the life of garments. Brands are increasingly sharing care tips and hosting workshops to empower consumers to make more sustainable choicesrecycleclothing.com.



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7.1 Challenges and Opportunities

While sustainable fashion offers immense potential, it also faces significant hurdles. Material limitations remain a key issue, as recycled and upcycled materials often experience quality degradation over time, making it difficult to maintain durability and performance. Scalability is another challenge, since upcycling and circular models tend to be labor-intensive and require specialized skills, limiting their ability to meet mass-market demand. Additionally, cost is a major barrier, as sustainable materials and certifications often come with higher price tags, making eco-friendly options less accessible for both brands and consumers.

7.2 Opportunities

- Innovation: Advances in bio-fabrication, digital fashion, and recycling technologies (e.g., fiber-to-fiber recycling) are creating sustainable alternatives and reducing waste.

- Consumer Demand: Growing awareness and preference for sustainability, especially among younger consumers, are driving market growth for ethical fashion.

- Policy Support: Regulations like the EU's Strategy for Sustainable and Circular Textiles and industry initiatives (e.g., Fashion Pact) encourage responsible practices and provide funding opportunities.

- Collaboration: Partnerships between brands, recyclers, and NGOs foster shared solutions, while circular business models (resale, rental, repair) create new revenue streams.

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Sustainable production, upcycling, and conscious sourcing are pillars of a circular fashion future. Via the effective marketing strategies the industry can balance profitability with environmental and social responsibility. Thus, the next chapter will highligt marketing strategies for recycled fashion entrepreneurs.

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- McDonough, W., & Braungart, M. (2002). Cradle to Cradle: Remaking the Way We Make Things. North Point Press.
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- Fashion for Good. (2022). The Next Generation of Materials… From Waste. Fashion for Good. https://fashionforgood.com/our_news/the-next-generation-of-materials-from-waste/ fashionforgood.com+2fashionforgood.com+2fashionforgood.com+2

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10.1 Key Publications & Toolkits

- Ellen MacArthur Foundation. (2021). Circular business models: Redefining growth for a thriving fashion industry.
- https://ellenmacarthurfoundation.org/topics/fashion/overview
- Global Fashion Agenda & BCG. (2017). Pulse of the Fashion Industry.
- https://globalfashionagenda.org/publications-and-policy/pulse-of-the-industry
- Textile Exchange. (2023). Material Change Insights Report 2023.
- https://textileexchange.org (Go to "Insights" > "Reports")
- Fashion Revolution. (2024). Fashion Transparency Index.
- https://www.fashionrevolution.org/about/transparency/

10.2 Online Platforms & Communities

- Common Objective – A knowledge hub for ethical and sustainable fashion professionals.
- Sustainable Apparel Coalition – Tools like the Higg Index to measure social and environmental impacts.
- Textile Exchange – Certifications, materials benchmarking, and sourcing guidance.
- Circular Economy Club – A global network promoting circular innovation.

10.3 Templates & Checklists (for internal toolkit or annexes)

- Upcycling Design Canvas – Guides the creation of new items from waste materials.
- Sustainable Sourcing Checklist – Criteria for evaluating eco-conscious suppliers.
- Supplier Traceability Template – Tracks where, how, and by whom materials are sourced.
- Eco-Certification Comparison Chart – Overview of labels like GOTS, OEKO-TEX®, Cradle to Cradle.

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Glossary (Selected Terms)

- Upcycling – Repurposing discarded materials into products of higher value.
- Circular Economy – A model focused on eliminating waste through reuse, repair, and recycling.
- Traceability – The ability to verify the history and journey of a product or material.
- GOTS (Global Organic Textile Standard) – Leading standard for organic fiber certification.
- Closed-loop System – A system where waste is recycled indefinitely, minimizing resource loss.

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WISE FASHION

Learning Opportunities to Optimize Skills in Recycled Fashion Applications Towards a Waste Conscious Industry

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Brand with Purpose: Marketing Strategies for Recycled Fashion Entrepreneurs

Prepared by: Serbia on the Move

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Marketing & Branding, Business Planning &Financial Management for Recycled Fashion

1. Introduction: Why branding matters in recycled fashion?

In the era of climate change, overconsumption, and pollution, the fashion industry stands as one of the world's biggest polluters. Every year, millions of tons of clothing end up in landfills, while enormous amounts of water, energy, and raw materials are used to produce new textiles. The result is a cycle that harms both the planet and people.

In this context, recycled fashion is no longer just a passing trend – it is a necessity. It represents a shift toward a circular economy, where waste is transformed into resources and clothing is designed to last. However, for recycled fashion to truly reach a wide audience and influence consumer behavior, branding plays a crucial role.

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2. What is a brand?

Branding is More Than a Logo.

Branding is often mistaken for just a name or a logo. In reality, a brand is much more:

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It is the feeling people have when they see your product, hear your name, or read your message.

It is your identity, but also your promise.
It communicates not only what you sell, but also what you believe in.

In recycled fashion, this distinction is even more important. A sustainable brand must communicate both style and purpose. People today don't just buy clothes – they buy values, beliefs, and a sense of belonging.

Your brand must clearly say:
"We care about the planet. We are changing the system."

3. Telling your story: The heart of a purpose-driven brand

Success Stories: How to Learning from Leaders

Veja – Sustainable Sneakers with a Mission

Veja is a brand that produces sneakers from recycled and organic materials. Its strength lies in transparency and values. Customers don't just buy shoes – they buy honesty, sustainability, and a movement for better practices.

Patagonia – A Pioneer in Recycled Fashion

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Patagonia, founded in 1973, has become a global symbol of responsible fashion. Long before sustainability became popular, the brand was already experimenting with recycled materials.

Recycled materials: Since 1993, they have used recycled plastic bottles to make fleece jackets.

The “Worn Wear” program: Encourages repair, reuse, and recycling of garments, instead of endless consumption.

Activism: Patagonia invests part of its profits in environmental causes, openly using its voice to fight for the planet.

Transparency: Customers know exactly where materials come from and who makes the clothes.

The result? Customer trust, strong sales, and a global movement. Patagonia proves that branding in sustainable fashion is not just marketing – it’s action.

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4. Brand identity in action: Name, Logo, colours and slogan.

Case Study: Wise Fashion

Wise Fashion is a concept brand built around conscious and responsible fashion – clothing that protects, not harms, the planet. Its identity combines aesthetics, sustainability, and a clear message: fashion can be both beautiful and a wise choice.

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Colors: Dominant green symbolizes nature, freshness, and trust. Minimalist color design reinforces “less is more.”

Logo: A dress form (craftsmanship) combined with a leaf (nature). This balance communicates both style and ecology.

Message: Wise Fashion is not just clothing. It is a movement toward conscious choices and a better future.

5. Choosing the right media for promotion: Where and How to promote your brand.

Social media is one of the most powerful – and cost-effective – tools for sustainable brands. The strategy should focus on education, inspiration, and engagement:

Educational content: Posts about the impact of fashion on the environment, benefits of recycled fashion, and practical tips like “How to extend the life of your clothes”.

Inspirational storytelling: Show the journey from recycled materials to finished design. Use videos, reels, and visuals that highlight both beauty and responsibility.

Community engagement: Use polls, challenges, and Q&A sessions to encourage dialogue and build loyalty.

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On Facebook, focus on building groups and sharing long-form eco-themed posts. On Instagram, prioritize strong visuals, reels about the recycling process, and user-generated content (UGC). Hashtags like #WearTheChange and #SustainableStyle help reach a broader audience.

6. Efficient low-budget marketing strategies.

For new sustainable brands, building awareness does not require a massive budget. What it requires is creativity, authenticity, and consistency.

1. Storytelling as a Branding Tool
Share where the material comes from, how it was recycled, and who made it. People connect to stories, not just products.

2. Social Media as the Main Channel
Use free organic promotion through visuals: short videos, “before/after” recycling transformations, and behind-the-scenes clips.

3. User-Generated Content (UGC)
Encourage customers to share photos with branded hashtags. This builds trust and community at no cost.

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4. Micro-Influencers & Eco Ambassadors

Partner with small but engaged influencers (500–5,000 followers) who genuinely care about sustainability. Their authenticity builds credibility.

5. Education as Brand Value

Share free resources like mini-guides ("5 Ways to Make Your Clothes Last Longer"). This positions your brand as both responsible and knowledgeable

6. Minimalist Visual Identity

Stick to simple, recognizable visuals – clean typography, green tones, and eco-inspired icons. This creates consistency across all platforms.

7. Community, Not Just Customers

Host live Q&As, workshops, or clothing swaps. Position your brand as a movement, not just a business.

7.Targeting your audience: Who are you designing for?

The target audience for recycled and sustainable fashion goes beyond traditional clothing buyers. These are conscious consumers who:

1. Care about their environmental impact.
2. Choose quality over quantity.
3. Support honest, transparent, and responsible brands.

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4. Value aesthetics combined with ethics.

Designing for this audience means creating a brand that is more than clothing – it is a lifestyle and a statement of values.

8. Key takeaways & next steps

Now that the foundations of branding and promotion are clear, the question becomes: How do you move forward and turn ideas into reality? Here are the recommended next steps for anyone who wants to launch or grow a recycled fashion brand:

1. Define Your Core Values and Mission

Write down what your brand stands for. Decide whether your focus will be on recycling, upcycling, circular economy, or a combination.
Create a mission statement that can be communicated in one sentence (e.g., “Fashion that gives waste a second life”).

2. Start Small, Test, and Learn

Develop a small first collection or even a capsule line using recycled materials. Test your products with a small group of customers, get feedback, and refine your designs. Remember: quality and storytelling matter more than quantity at the beginning.

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3. Build a Strong Online Presence

Set up a simple but professional website or online store. Use Instagram and Facebook to showcase your story and build your first community. Post consistently, even if it's just once or twice a week, to stay visible.

4. Create Partnerships

Collaborate with local artisans, recycling organizations, or eco-stores.
Partner with micro-influencers who genuinely share your values.
These partnerships amplify your reach without big costs.

5. Measure Your Impact

Track how much waste you are recycling or how many garments you save from landfills. Share these results with your audience — numbers add credibility and inspire trust.

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6. Plan for Growth

Once you have a loyal community, think about expanding: new collections, pop-up stores, or collaborations. Stay true to your mission as you grow. Customers will follow if they feel your authenticity remains unchanged.

Self-assessment test

1. Why is recycled fashion important today?
a) Because it is always cheaper than new clothes
b) Because fashion trends change quickly
c) Because it reduces waste and saves resources
d) Because people like retro style

(Correct answer: c)

2. What must a brand in recycled fashion communicate?
a) Only low product prices
b) Only the modern look of clothing
c) Both style and purpose – values and care for the planet
d) Only an original logo

(Correct answer: c)

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3. Which company is known for the "Worn Wear" program, which encourages repair and reuse of clothes?
a) Zara
b) Patagonia
c) H&M
d) Nike

(Correct answer: b)

4. Which strategy is recommended for promoting sustainable brands with a small budget?
a) Expensive TV commercials
b) Paid ads in fashion magazines
c) Using storytelling, social media, and micro-influencers
d) Opening luxury boutiques

(Correct answer: c)

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Business Planning & Financial Management for Recycled Fashion

From Idea to Action: Business Planning & Financial Basics for Recycled Fashion Entrepreneurs

1. Building Blocks of a Simple Business Plan

A business plan is a roadmap that translates an idea into structured action. Below are the essential building blocks.

2.1 Executive Summary

What it is: A concise overview of the business idea, mission, vision, and goals.

Why it matters: Investors and stakeholders often read only the executive summary before deciding to continue (Scarborough, 2018).

Activity: Draft 5–6 sentences summarizing your recycled fashion idea.

2.2 Business Description

What it is: A detailed explanation of the business, its legal form, story, and unique value proposition. Relevance to recycled fashion: Highlights how the business contributes to sustainability, waste reduction, and ethical fashion practices (Fletcher & Tham, 2019).

Activity: Write one paragraph describing your brand and its unique qualities.

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2.3 Business Model

What it is: The logic of how the business creates, delivers, and captures value (Osterwalder & Pigneur, 2010). For recycled fashion: Could include selling unique upcycled products, hosting workshops, or offering subscription-based clothing swaps.

Activity: Create a diagram showing your business inputs, processes, and revenue streams.

2.4 Operations Plan

What it is: How the business will function day to day.

Includes: Production, suppliers, logistics, and delivery (Barringer & Ireland, 2019).

For recycled fashion: Emphasize eco-friendly sourcing, low-waste production, and green packaging (Henninger et al., 2016).

Activity: Map the production steps from sourcing to customer.

2.5 Financial Plan

What it is: The numbers that prove business viability.

Includes: Startup costs, ongoing costs, pricing, and revenue forecasts.

Why it matters: Sound financial planning ensures survival and growth (Scarborough, 2018). Recycled fashion focus: Pricing should balance affordability with fair wages and sustainable sourcing (Niinimäki & Hassi, 2011).

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Activity: Calculate the cost of one product and set a selling price.a)

3. Steps in Budget Planning

1. Estimate your production volume

Decide how many products you want to make and sell each month. Example: 20 upcycled denim jackets.

2. List your variable costs (costs that change with production).
   - Recycled materials (e.g., second-hand jeans: €10 per jacket)Labor (sewing: €12 per jacket)
   - Packaging and shipping (e.g., €4 per jacket)
   - → Variable cost per jacket = €26

3. Calculate fixed costs

4.Find the total cost per product

Divide fixed costs by number of products, then add variable costs.

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- Fixed cost per jacket: €600 ÷ 20 = €30
- Total cost per jacket = €26 + €30 = €56

5. Set your price
Add a profit margin. For example, if you want a 30% margin:
Selling price = €56 × 1.3 = €72.80

6. Calculate your break-even point
Break-even = Fixed costs ÷ (Selling price – Variable cost)

- €600 ÷ (€72.80 – €26) = €600 ÷ €46.80 = 13 jackets
- → You need to sell at least 13 jackets per month to cover your costs.

Conclusion: You need to sell at least **13 jackets per month** to cover your costs

Tools You Can Use

- Spreadsheets (Excel, Google Sheets) – easy for calculations.
-
- Free accounting apps like Wave or Zoho – help you track expenses and sales.

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4. Basics of Financial Forecasting and Long-Term Thinking

Forecasting is about predicting revenues and expenses over time. For startups, simple forecasting can include:

1.Break-even analysis: When revenues will cover costs.

2. Sales projections: Based on realistic market demand.

3. Cash-flow forecasting: Ensuring liquidity to pay suppliers and employees.

For recycled fashion, forecasting must also account for fluctuations in supply (availability of second-hand materials) and seasonal demand (e.g., holiday sales). Long-term thinking encourages entrepreneurs to scale responsibly while keeping sustainability at the core (Fletcher & Tham, 2019).

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5. Inspirational Stories of Young Entrepreneurs

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5. Self-Assessment Test

Question 1
What is the main purpose of creating a budget for a recycled fashion business?
a) To impress investors
b) To understand costs and control spending
c) To increase taxes
d) To avoid making a business plan
Correct Answer: b) To understand costs and control spending

Question 2
If fixed monthly costs are €500 and the variable cost per product is €15, what is the total cost of producing 10 items?
a) €150
b) €500
c) €650
d) €350
Correct Answer: c) €650
(Explanation: €500 fixed + (€15 × 10) variable = €650)

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Question 3

If a jacket costs €40 to produce and you want a 25% profit margin, what should the selling price be?

a) €45

b) €50

c) €55

d) €60

Correct Answer: b) €50

(Explanation: €40 × 1.25 = €50)

Question 4

What does the "break-even point" mean?

a) The point when you first sell an item

b) The number of products you must sell to cover all costs

c) The amount of money you make after profit

d) The time when your costs decrease

Correct Answer: b) The number of products you must sell to cover all costs

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WISE FASHION

Learning Opportunities to Optimize Skills in Recycled Fashion Applications Towards a Waste Conscious Industry

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Ethics of recycled fashion

Prepared by: Fundacja Inkubator Innowacji

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Ethical and Social Considerations in Recycled Fashion

Fashion is woven into the fabric of our society, and excessive fashion production has not only profound ecological implications but also raises specific ethical and social considerations.

The rise of fast fashion has led to environmental injustice, waste colonialism, and exploitative labor practices in low- and middle-income countries. The growing consumer awareness helps to change consumption patterns and encourage more ethical production, but without transparency, brands often resort to greenwashing to appear more eco-friendly than they actually are. It is a harmful practice as it tricks customers into thinking they made better choices and undermines trust for all eco-conscious initiatives.

Recycled fashion is an alternative to the never-ending production of new clothes. It can come in many forms: shredding old textiles to spin new yarn, breaking fibers down chemically to make new ones, reusing and reselling items (platforms such as Vinted would be a good example), downcycling (transforming old textiles into something of lower value, for example cotton clothes intro industrial rags), and upcycling (creative transformation of old textiles into items of higher quality).

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Ethical and Social Considerations in Recycled Fashion

Recycled fashion practices support responsible fashion consumption and value distribution through local repair economies, having a positive impact on the environment.

According to BCG (1), 80% of all discarded clothing is never reused or recycled, instead ending up in landfills or incinerators. To put things into perspective, in 2024, we discarded enough clothes to fill 200 Olympic stadiums, reused up to 12% of them, and recycled less than 1% (1). Why does it matter so much? The fashion industry is responsible for around 10% of global greenhouse gas emissions (2). Producing textiles accounts for 92% (1) of that number. Given that the textile production has more than doubled since 2000, recycled fashion addresses the root issue: the never-ending production of new fabric.

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1. Sajdeh, R., Martinez-Pardo, C., Meyer zum Felde, A., Lange, T., Tieri, E., & Evans, E. (2025, August 12). Spinning textile waste into value. Boston Consulting Group. Fashion is woven into the fabric of our society, and excessive fashion production has not only profound ecological implications but also raises specific ethical and social considerations.

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2. United Nations Framework Convention on Climate Change. (2018, September 6). UN helps fashion industry shift to low carbon.
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The rise of fast fashion has led to environmental injustice, waste colonialism, and exploitative labor practices in low- and middle-income countries. The growing consumer awareness helps to change consumption patterns and encourage more ethical production, but without transparency, brands often resort to greenwashing to appear more eco-friendly than they actually are. It is a harmful practice as it tricks customers into thinking they made better choices and undermines trust for all eco-conscious initiatives.

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Ethics of recycled fashion

While excessive fashion consumption is a global issue, European statistics reflect international trends. According to the European Environment Agency, in 2022, the 27 European Union member states generated 16 kilograms of textile waste per citizen - an estimated 6.94 million tonnes of textile waste (2).

The bad news is that across the EU, around 11.1 kg of textiles and shoes per person were not separately collected and lost their chance of being recycled or reused (2). Globally, textile waste amounts to a fortune of $150 billion lost in raw materials that went to the dumpster, rather than back into production. To put things into perspective, the same source suggests that recovering merely 25% of them is enough to offset annual materials expenditures for the 30 largest fashion companies in the world (1).

Excessive fashion production raises many ethical issues: it maximizes microplastic pollution, creates gigantic landfills in low-income countries, and increases energy and water consumption in a world where water is becoming a rarer commodity year by year.

Recycling in all its forms offsets some of the damage, primarily when it supports long-term circularity.

The problem arises when recycling is merely a facade, and not as eco-friendly or ethical as promised. Greenwashing, outsourcing the waste burden to disadvantaged communities, or chemical recycling with toxic substances create brand-new problems and, very sadly, seem to be in fashion within the industry.

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Ethics of recycled fashion

Ethical recycling is environmentally, socially, and economically just, and focuses on tangible impact, not nicely looking corporate statistics. At its best, it reduces textile waste, promotes responsible fashion consumption, raises ecological awareness, encourages human creativity, and supports local economies through small-scale production, repair, and resale.

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1. Sajdeh, R., Martinez-Pardo, C., Meyer zum Felde, A., Lange, T., Tieri, E., & Evans, E. (2025, August 12). Spinning textile waste into value. Boston Consulting Group. https://www.bcg.com/publications/2025/spinning-textile-waste-into-value
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50 shades of greenwashing

When sustainability becomes just a marketing tool and brands make exaggerated or misleading claims about the recycled origins of their products, it is greenwashing.

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50 shades of greenwashing

Greenwashing is all around us, and it often starts with misleading labels on clothes.

One example: a fast fashion brand that launches an “eco-friendly” line with words like "sustainable" and “eco-conscious” written all over labels and a tiny note that only 7% of the material is actually recycled.

Another recipe for a greenwashing campaign? Big claims, noble initiatives, and minimal transparency. If a brand promotes recycling initiatives and collects textiles but does not disclose the percentage of recycled items, the numbers are likely not impressive. **Often, recycling campaigns omit the fact that most collected items are downcycled (turned into items of lesser value, such as industrial rags) or exported to lower-income countries.**

Sometimes brands claim to use recycled materials, but with little to no sustainability in mind, producing clothes that can be worn a few times before becoming disposable.

If they consistently launch recycled-fashion collections to make sustainability claims while increasing their overall production and water use year by year, that is another example of nicely packaged greenwashing.

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50 shades of greenwashing

The best antidote to greenwashing is consumer education backed by brand transparency. Verifiable data sources and eco-awareness leave little room for exaggerated claims. Producing large volumes of clothes with short lifespans out of recycled materials is not ethical, even if it is branded as "eco-conscious".

Greenwashing is a form of customer deception that erodes people's trust in sustainable initiatives, delays the systemic changes needed for real impact, and shifts most of the ecological responsibility onto customers rather than manufacturers.

Here are a few questions to help identify greenwashing campaigns:

- Is the information on the label easily verifiable with real data?
- How many items of the eco line are actually made out of recycled materials?
- What is the percentage of recycled textiles used in production?
- Is the collection produced in mass volumes?
- How transparent is their supply chain?

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Fashion transparency and EU textile strategies

While landfill mountains grow worldwide and **an average piece of clothing in Europe is worn 7 to 10 times before being discarded (1)**, the EU has been working on textile strategies to combat textile waste. **The first step has already been taken: under the new EU waste laws, all member states must ensure there are separate textile waste collection points. Textile waste can no longer be mixed with general household waste and therefore can be recycled.**

The EU Strategy for Sustainable and Circular Textiles aims to transform the textile sector by 2030. The EU textile market of the future is meant to be filled with durable, recyclable, and recycled garments that follow the principles of the circular economy and can be reused, repaired, and repurposed multiple times during their lifespan.

Here are the steps that the EU will take towards a better textile future:

- **Introduction of mandatory ecodesign requirements:** extending the lifespan of textile products reduces their climate impact so that the EU will develop binding, product-specific ecodesign requirements on durability, reparability, reusability, and recycled fiber content (2).

- **Systemic transparency and ban on the destruction of unsold or returned products:** large companies will be publicly obliged to disclose the number of products they discard or destroy, textiles included (2). There will also be a ban on the destruction of unsold products of all sorts, including returned items.

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Fashion transparency and EU textile strategies

- **Reducing microplastic pollution: textiles made from synthetic fibers (for example, polyester) are among the primary sources of unintentional microplastic release.** Microplastics contaminate our food chains, destroy animal life, and never biodegrade, remaining in our ecosystems for centuries. The highest amount of microplastics is released in the first 5-10 washes (especially of fast fashion garments). The EU wants to tackle the problem by binding design requirements, pre-washing at industrial manufacturing plants, and special washing machine filters and mild detergents that minimize the amount of microplastics released during the washing (2).

Sources:

- Sustainability Directory. (2025, September 20). *EU regulations drive fashion transparency and waste reduction*. https://news.sustainability-directory.com/fashion/eu-regulations-drive-fashion-transparency-and-waste-reduction
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Fashion transparency and EU textile strategies

The new EU textile strategy is set to make textile reuse and repair profitable and affordable, with textile repair services widely available across the continent, and to reduce textile waste to a minimum. By design, landfills will no longer be the final destination for textiles after their first use. Recycling will become the default by law.

- **Introduction of a Digital Product Passport for textiles**: each textile product will be accompanied by a digital record with information on its circularity (is it recyclable? can it be repaired if it tears?), fiber composition, and environmental impact (is it durable? how was it made?), and where it came from (1).

- **Reduced greenwashing: eco-friendly claims will require proof - fashion companies will have to provide customers with a commercial guarantee of durability and relevant information on repair options.** Items will have their own truthful reparability score to inform customers of their durability. Any green claims will be verified to discourage greenwashing attempts and boost fashion transparency (1).

- **Greater producer responsibility, not customer guilt-tripping:** the key objective is to keep producers engaged in the textile collection process, either financially or operationally, to create an effective system of collection, sorting, reuse, preparation for reuse, and recycling all across the EU (1).

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Cultural reshaping of fashion consumption patterns

The real textile revolution starts with a cultural reshaping of our relationship with fashion. Fast fashion promotes fast consumption with little emotional attachment to clothing and zero regard for mindful ownership. Use, discard, and repeat. Shifting towards a mindful fashion ownership that focuses on quality and durability rather than quantity is a real cultural step forward.

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Cultural reshaping of fashion consumption patterns

Mindful fashion ownership teaches us to take care of our clothes, choose them based on durability and reparability rather than trends and quick dopamine hits, and to revive traditional practices such as sewing, mending, and upcycling.

The rise of local repair economies, with community sewing hubs, recycled-fashion shops, second-hand stores, and upcycling projects, lays the foundations for local circular economies.

Benefits are endless:

- extended product lifecycles and reduced waste
- stronger community ties, higher self-reliance, and crisis resilience (repairing items makes new purchases unnecessary)
- recovery of lost zero-waste-friendly skills like sewing
- creation of local employment and support for artisan projects

Upcycling and sewing workshops across Europe unlock creativity and foster emotional attachments to one's clothes: something that is impossible with disposable fast-fashion garments that will not last more than a few wears.

The recycled fashion movement is a collective effort to reconnect with the clothes we wear, reshape how we consume, and take responsibility for what we own and how it impacts our planet.

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Cultural reshaping of fashion consumption patterns

Textile reinvention is a matter of imagination: materials can be reused and repurposed in many creative ways. Discarded textiles can be turned into:

- dog toys
- unique banana bags for trips
- colorful laptop bags
- handmade dolls
- new unique designs
- carpets
- rugs
- wallets

With sewing skills, possibilities are endless. Not only does upcycling reduce textile waste, but it also gives customers truly unique products that stand out in the era of mass production.

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Cultural reshaping of fashion consumption patterns

Proper fashion education on the true costs of fast fashion is an integral part of reshaping collective fashion consumption. The real change starts when people buy less, repair more, and repurpose textiles more often. The growing number of local sewing and upcycling initiatives equips people with valuable repairing skills that encourage mindful fashion consumption. Ethical choices are rarely convenient, but with easier access to textile waste collection points, higher brand transparency, and more local repair options, recycling can be integrated into the daily lives of EU citizens with less hassle than ever before.

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Textile reinvention: dream up a recycled fashion project

Textile reinvention starts with each one of us. Exercising our imagination to understand what it takes to run a recycled-fashion project or even a business can help us better grasp the hidden costs of fast fashion. **Ethical recycled fashion projects come with various socio-ethical considerations that cannot be ignored.**

Dream up your own recycled fashion project. What would you like to upcycle or repurpose? Here's a quick set of questions to consider for your imaginary project:

- Are materials used in the process truly recycled/reclaimed?
- Are materials durable and safe to use?
- Are workers fairly paid? Are work conditions good?
- Do you disclose supply chain information? What's the desired level of transparency?
- Is the packaging eco-friendly?
- Are there re-pair or take-back options available?
- Do designs prioritize long-term sustainability over short-term trends?

Ethical recycled fashion projects and businesses minimize environmental impact, provide full transparency on used materials and supply chain practices, and ensure fairness, especially in terms of labor pay and conditions.

Transparent sourcing of materials from verified recycled streams (collecting textiles from people, factories, manufacturers), fair labour practices, circular and recyclable design, as well as local, community-driven engagement and collaborations, are among some of the best ethical fashion practices for existing and emerging brands and projects.

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Textile reinvention: dream up a recycled fashion project

Fast fashion thrives when customers are passive, obsessed with trends and quantity, and unconcerned with long-term consequences of excessive fashion consumption. Do we own clothes or do they own us if shopping becomes nearly compulsive? Textile reinvention starts with personal and collective responsibility over things we own and consume.

Recycled fashion is a practical form of creativity and environmental care. That's the best label on the market.

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WISE FASHION

Learning Opportunities to Optimize Skills in Recycled Fashion Applications Towards a Waste Conscious Industry

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Thank you!

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PRAMMER

SRBIJA U POKRETU
Mi stvaramo pokretače, ne pokrete
We make movers, not movements

SÜRDÜRÜLEBİLİR DİJİTAL DÖNÜŞÜM DERNEĞİ

INKUBATOR INNOWACJI

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