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Module 5

UNIT 3

PRODUCTION AND
QUALITY CONTROL

Duration: 2 hours

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FASHION-UP

Overview of the Unit

In this Unit, you will learn about the principles and procedures of production and quality control. We'll talk about the process of setting up the production process for upcycled garments and the measures to be taken in order to ensure the excellence of the products, as well as the existent EU regulations for garment production and quality control.

Expected Learning Outcomes

By the end of this Unit, you will be able to:

1. Recognize the necessary steps for setting up the production process of an upcycled garment
2. Define the principles of Quality assurance and Quality control
3. Conduct quality control on upcycled garments
4. Summarize the existent EU regulations on textiles' quality control

Estimated Reading Time
13 minutes

Pre-requisite knowledge

For this Unit, you have basic skills in materials sourcing (Module 3) and upcycled tailoring (Module 4).

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Learning Objective

The Unit aims to equip the future sartorial artisans with a basic knowledge of production and quality control and the respective EU regulations.

Target Audience

This Unit targets learners who are seeking basic knowledge on production and quality control in the field of artisanal fashion.

Key concepts

Production process, quality control, quality assurance, EU regulations

- A laptop with access to the internet
- A projector

Necessary equipment

01

Teacher's Profile

Technical:

- Knowledge of the upcycling production chain

Pedagogical:

- Experience in teaching adult learners and understanding their learning styles
- Strong communication and presentation skills to engage learners

Business and Entrepreneurial:

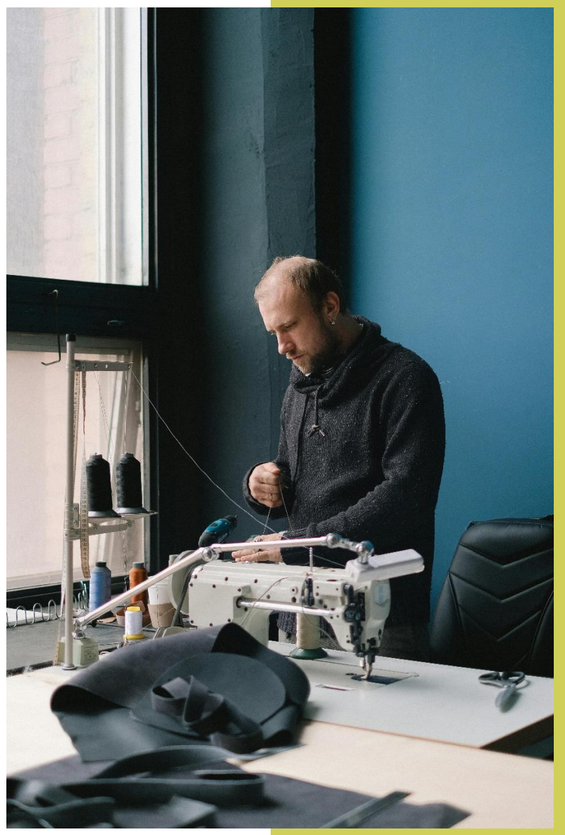
- Proficiency in setting up the production process for upcycled garments
- Knowledge of quality control measures
- Understanding of product quality regulations and certifications

02

Methodology

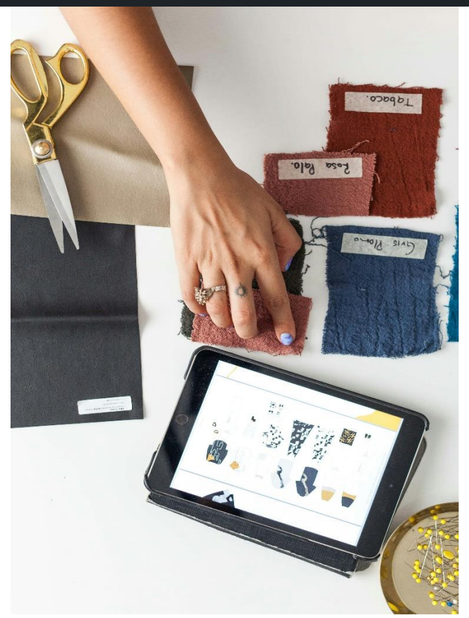
This Unit will be based on experiential learning methodologies.

Production Planning and process



Upcycling garments involves transforming discarded or unwanted materials into new, high-quality products. This process requires careful planning and a unique approach to production, where each step needs to take into consideration the environmental impact of garment production.

Standard Design vs. Upcycling Design



The fashion industry operates under two primary models: standard and upcycled.

- **Standard** fashion follows a linear model, sourcing virgin materials to produce new garments, which are eventually discarded.
- **Upcycled** fashion, on the other hand, adopts a circular approach, repurposing existing materials like discarded textiles to create new, unique pieces.

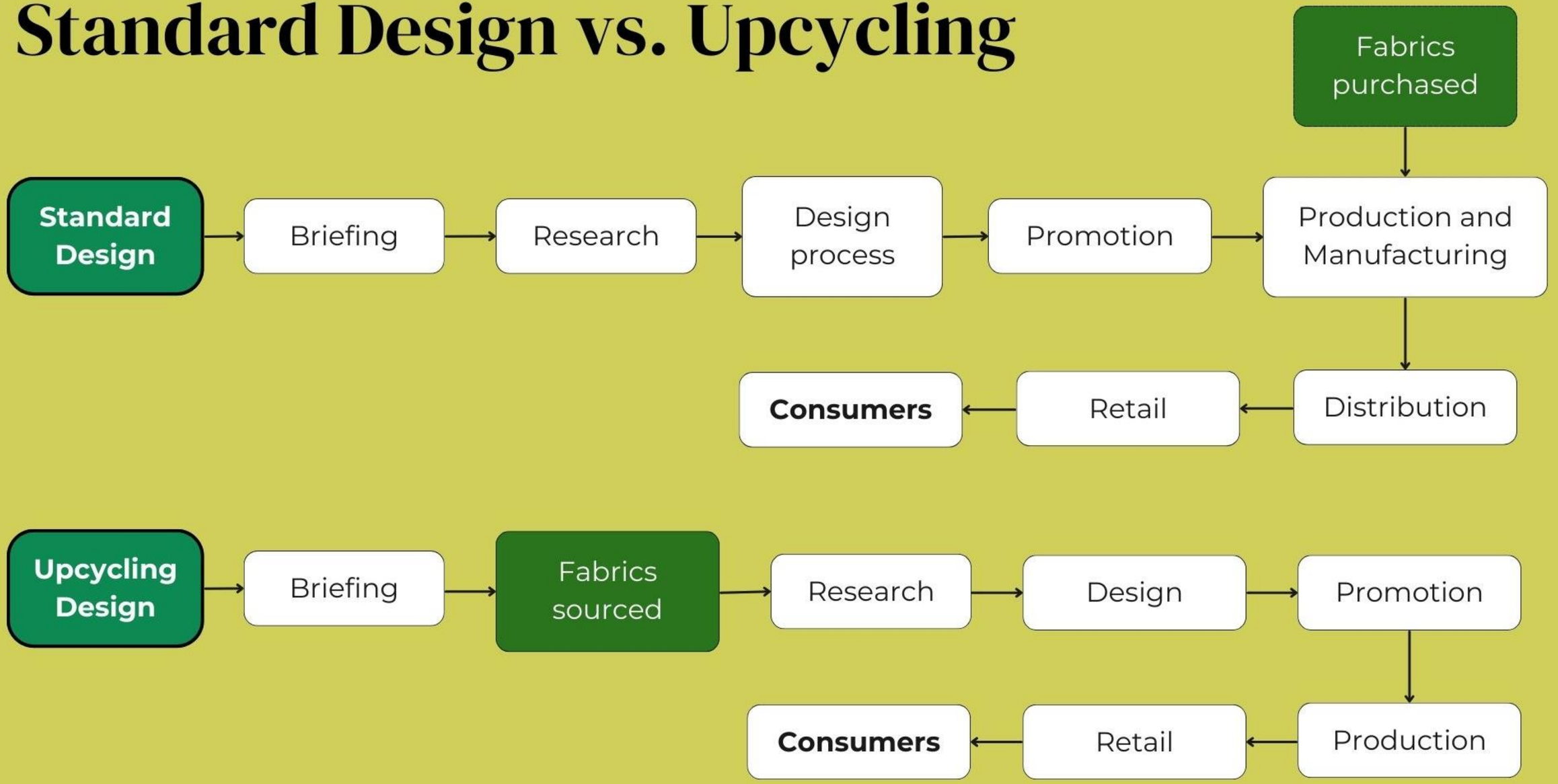
This practice minimizes waste, conserves resources, and promotes sustainability within the fashion industry.

In the following slide you will see their main differences in regards to the production process.

Note

You can read more about the environmental and financial impact of Upcycling in Module 1.

Standard Design vs. Upcycling



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Standard design model

The **standard fashion design model** typically commences with extensive market research to understand trends, and competitor products. Designers translate these concepts into sketches and prototypes, ensuring alignment with the desired aesthetic and expectations of the current market. A critical juncture in this process is fabric sourcing, as it happens after the design process, with the purchase of virgin fabrics from manufacturers.

The **upcycled fashion design model** diverges significantly from the standard approach. It begins with the meticulous sourcing of pre-existing materials, such as discarded garments, fabric scraps, and textiles. This initial step of material sourcing serves as the foundation for the entire design process. Designers meticulously examine the collected materials, considering their inherent qualities – color, texture, size, and any existing embellishments – to inspire and guide the creative process. The design process then unfolds organically, with designers adapting and innovating to transform these found materials into unique and functional garments. This approach prioritizes creativity, resourcefulness, and a deep respect for the materials' inherent value.

Learn more: https://shorturl.at/Ea9Ze

Upcycling design model

The production process

1. Material Sorting and Preparation

- ✓ Sort materials by type, color, and condition.
- ✓ Clean and prepare materials for use.
- ✓ Deconstruct garments into usable components.

2. Pattern Making and Cutting

- ✓ Create patterns based on designs and available materials.
- ✓ Cut materials according to patterns, minimizing waste.

3. Construction

- ✓ Assemble garments using various sewing techniques.
- ✓ Add embellishments or details as needed.

4. Quality Control

- ✓ Inspect garments for quality and consistency.
- ✓ Make necessary adjustments or repairs.

5. Finishing Touches

- ✓ Press and finish garments.
- ✓ Add labels and tags.

Key considerations

01

Sustainability

Prioritize environmentally friendly practices throughout the production process.

02

Ethical considerations

Ensure fair labor practices and ethical sourcing of materials.

03

Creativity & innovation

Encourage creative problem-solving and innovative design approaches.

04

Quality & durability

Maintain high standards of quality to ensure the longevity of upcycled garments.

Note

The quality of produced garments will be discussed in detail further on.

Quality assurance and control in Upcycling

Quality assurance and control in upcycled garment production is crucial for maintaining customer satisfaction and brand reputation. Through the implementation of quality measures at every stage of the production process, upcycling businesses can create high-quality, durable, and ethically produced garments that meet customer expectations and contribute to a more sustainable fashion industry.

Remember!

Quality assurance and **Quality control** are not the same principle. They are both crucial components of the product manufacturing process, but they use different approaches.

Quality assurance
Focus: Preventing defects from occurring in the first place.
Approach: Proactive and preventative

Quality control
Focus: Identifying and correcting defects in finished products or services.
Approach: Reactive and corrective.

Visit https://shorturl.at/Hv4zG

Let’s watch this video

https://www.youtube.com/watch?v=zSyICkGZ6iM

Main objectives

1. Ensuring consistent product quality: Garment quality focuses primarily on ensuring uniformity in product quality throughout the production process. When the same level of quality is always maintained, it means that customers will get reliable fabrics that suit their needs.
2. Enhancing customer satisfaction: This means that the product delivered exceeds expectations in terms of comfort, durability, and beauty among others, while still taking into account the desires of consumers, consequently strengthening faith in the business (which can lead to success for a long time).

Quality assurance & control areas

Now that you've seen the key components of setting up the upcycling process, let's talk about garment production quality assurance and control.
Here are the areas where they need to be applied:

1. Material selection and pre-processing
2. Design and pattern making
3. Cutting and assembly
4. Finishing and packaging
5. Post-production control

Go to the next page to read about them in detail.

Quality assurance & control areas

Material Selection and pre-processing

- Thorough inspection: Each piece of upcycled material should be carefully inspected for defects, stains, or damage.
- Cleaning and sanitization: Proper cleaning and sanitization methods are essential to remove dirt, odors, and potential health hazards.
- Material testing: Conduct tests on the fabric's strength, colorfastness, and other relevant properties to assess its suitability for the intended garment.

Note: you can read more about sourcing and selection of materials in Module 1.

Design and pattern making

- Careful Measurements: Accurate measurements are vital to ensure a good fit and avoid wastage.
- Pattern adaptability: Patterns may need to be adapted to suit the unique characteristics of upcycled materials, which can vary in size, shape, and texture.

Quality assurance & control areas

Cutting and assembly

- Precise cutting: Accurate cutting techniques minimize fabric waste and ensure clean lines in the final product.
- Consistent assembly: Adhere to standardized assembly processes to maintain consistency and quality across all garments.
- Regular checks: Conduct regular quality checks during the assembly process to identify and rectify any defects early on.

Note: you can read more about techniques of tailoring in Module 4.

Finishing and packaging

- Meticulous finishing: Pay attention to details like stitching, hemming, and buttonholes to ensure a professional finish.
- Proper packaging: Use appropriate packaging materials to protect the garments during transportation and storage.
- Clear labeling: Provide clear and accurate labeling with care instructions and size information.

Quality assurance & control areas

Post-production quality control

- Final Inspection: Conduct a final inspection of each garment to identify and address any remaining defects.
- Customer feedback: Actively seek and incorporate customer feedback to continuously improve quality and address any concerns.

Best practices

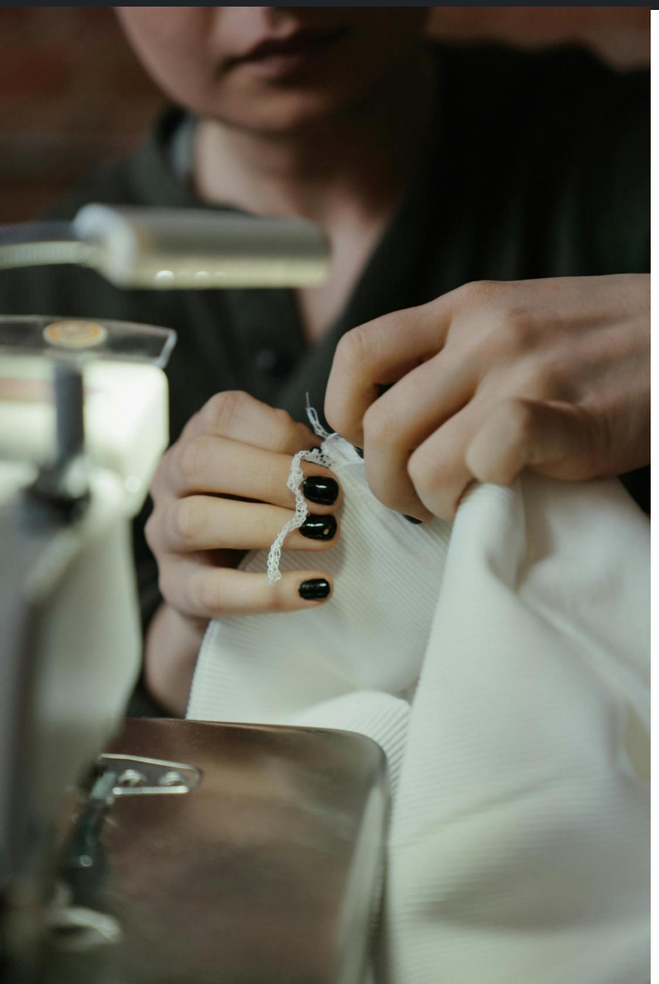
If you don't know where to start, you can start by taking a look at the following best practices:

1. Create a comprehensive quality manual that outlines all the established standards, procedures, and guidelines. The manual will serve as a reference for you (and/or your team).
2. Conduct regular inspections at various stages of production, which allows for early identification and correction of any defects.
3. Perform a thorough final inspection of each garment before packaging and shipping.
4. Use checklists and forms to document inspection findings, track defects, and monitor production progress.
5. Analyze customer feedback to identify areas for improvement and address any recurring issues.

You can also find a lot of **resources online**, for example:

- https://checklist.gg/templates/quality-control-checklist
- https://theoddfactory.com/product/quality-control-checklist-your-production-perfection-guide/
- https://www.projectmanagementdocs.com/template/project-documents/quality-checklist/

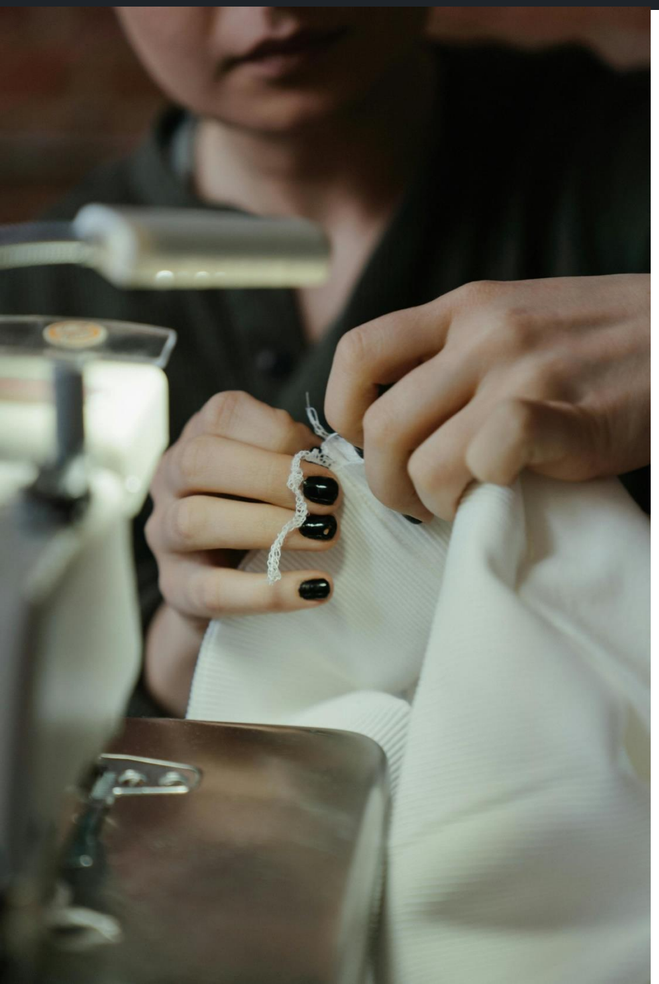
Common types of garment defects



Fabric Defects

- **Color variations:** These can occur due to dye lot variations or inconsistencies in the dyeing process. Identifying color variations during material sourcing is crucial to ensure that the produced garments in a batch have consistent colors.
- **Stains:** Stains on fabric can occur during manufacturing or transportation and can be caused by oil, dirt, or other substances. You should check for stains and remove them before the garment is shipped.
- **Holes:** Holes in the fabric can be caused by snags, tears, or also by damage during production or transportation.
- **Snags:** Snags occur when threads are pulled out of the fabric, creating a loop. This can happen during production or wear. Identifying and repairing snags is crucial, as they can lead to further tearing or damage to the garment.

Common types of garment defects



Construction Defects

- **Broken stitches:** Broken stitches can occur when the sewing machine needle breaks or the thread tension is incorrect. This can lead to loose seams or even holes in the garment.
- **Misaligned seams:** Misaligned seams occur when the pieces of fabric need to be sewn together correctly, resulting in uneven seams. This can make the garment look unprofessional and affect its fit.
- **Loose threads:** Loose threads can occur when the thread is not trimmed correctly after sewing. These threads can become tangled and create a messy appearance.

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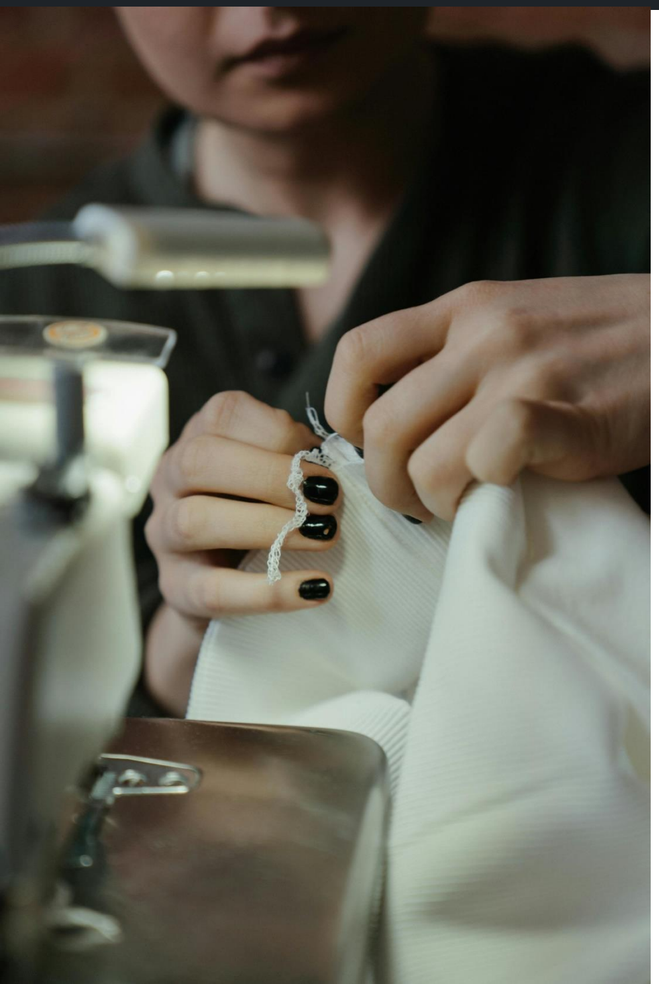
Common types of garment defects



Sizing Defects

- **Incorrect measurements:** Incorrect measurements can occur either to human error or when the pattern or template used to cut the fabric must be corrected. This can result in a garment being too big or too small.
- **Inconsistent sizing:** Inconsistent sizing can occur when different garment parts have varying measurements, which can affect the fit and comfort of the garment. You should check for inconsistent sizing and ensure that all aspects of the garment meet the required standards.

Activity on Quality control

To the trainer: The main pre-requisite is for learners to understand how to detect defects in garments.

01

Materials needed

- An upcycled garment with defects
- An upcycled garment without defects
- Markers and paper sheets

02

Objectives

- For participants to understand the procedure of detecting garments for defects.
- To thoroughly understand the list of possible upcycled garment defects.
- To practice on the active detection of upcycled garments for possible defects.

01

Duration

1 hour

Setting

a room where you can put participants in groups of two.

Activity on Quality control

Plan

Time	Activity
00:00 – 00:10	Presentation of the list of possible garment defects
00:10 – 00:35	Work in groups to inspect the 2 different upcycled garments
00:35 – 00:45	Sharing and feedback
00:45 – 01:00	Debriefing and wrap-up

Activity on Quality control

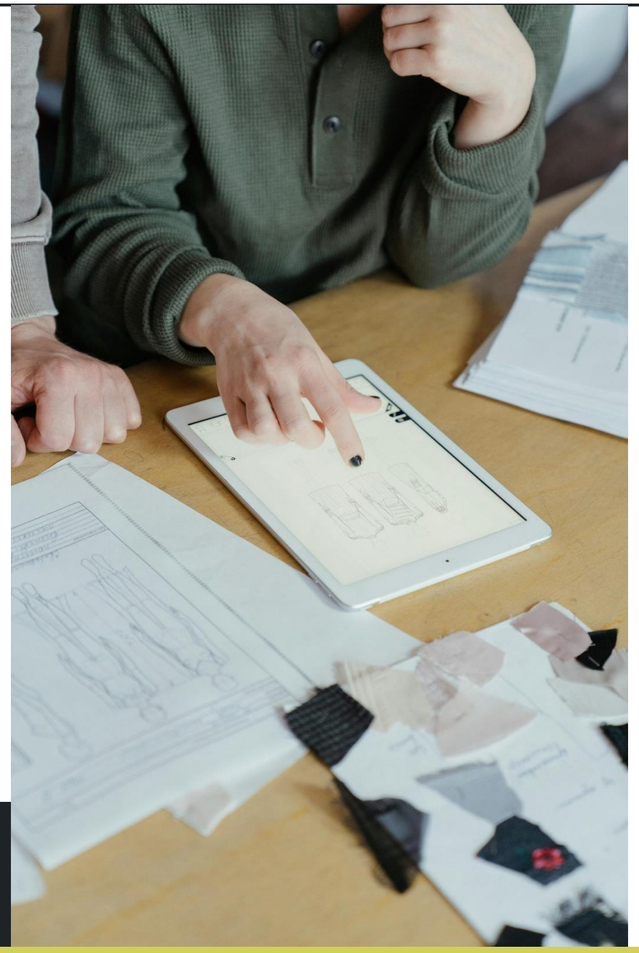
Implementation

1. Introduce the concept of upcycling and its importance in sustainability and present the list of possible garment defects. Briefly explain each defect and its potential causes.
2. Distribute the two upcycled garments to each group. Instruct them to carefully examine each garment, identifying and noting any defects they find. Also, provide each group with a checklist or recording sheet to document their findings.
3. At the end, have each group share their findings with the larger group.
4. Encourage discussion and comparison of the defects found in each garment and facilitate feedback and questions among the groups.
5. Discuss the challenges and successes of upcycling as a sustainable practice and emphasize the importance of quality control and ethical production in the garment industry.

EU regulations

The EU has implemented several measures to ensure quality control in garment manufacturing, focusing on both product safety and ethical production practices.

Even though, they don’t refer to the process of upcycling itself, it’s important to know them in order to have the final upcycled product comply with the regulations.

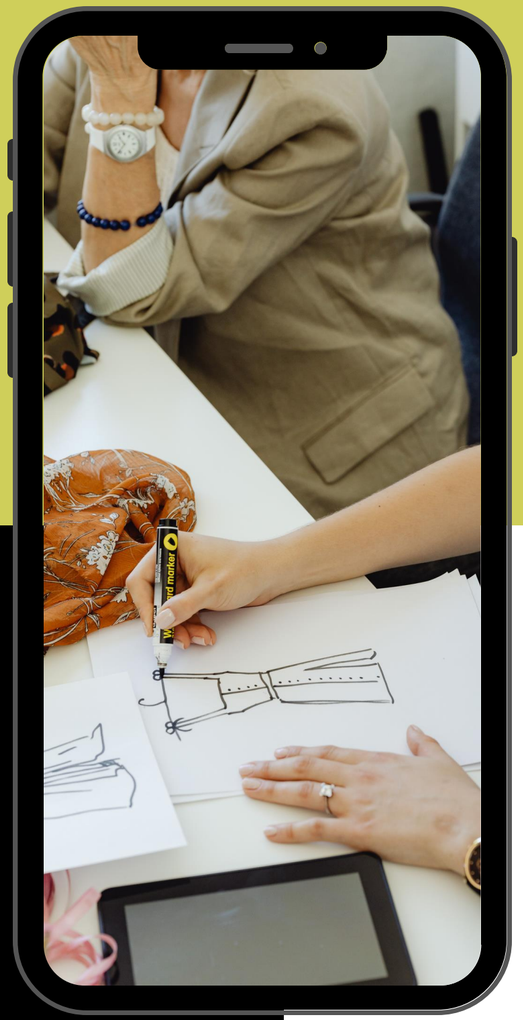


1. **REACH** (Registration, Evaluation, Authorisation, and Restriction of Chemicals): This regulation restricts the use of certain hazardous chemicals in textiles to protect consumer health. https://echa.europa.eu/regulations/reach/understanding-reach
2. **Textiles Labelling Regulation**: This regulation mandates clear and accurate labeling of textile products, including fiber content, care instructions, and country of origin. https://europa.eu/youreurope/business/product-requirements/labels-markings/textile-label/index_en.htm

EU Country-Specific Fashion & Textile Regulations

While the above regulations apply across the EU, some are specific to individual countries.

Visit https://www.sustainablebrandplatform.com/articles/eu-country-specific-fashion-texile-regulations-2024#:~:text=While%20many%20regulations%20apply%20across,regulations%20impacting%20the%20textile%20industry.



Unit Summary

In this Unit you learnt about setting up the process for upcycled garments and its difference from the traditional process of garment production. Following that, you learnt about the meaning of quality control in the production chain and its most important characteristics.
In the end, we talked about the regulations imposed by the EU to ensure production quality.

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