



## Unit 1

The Impact of the Fashion Industry on Our Environment

Project reference number: 2022-2-DE04-KA220-YOU-000101981



Co-funded by  
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**Key Action:**

KA 220 – Cooperation partnerships in youth

**Sub-action:**

HORIZONTAL: Environment and fight against climate change

**Main Priority:**

HORIZONTAL: Common values, civic engagement and participation

**Additional Priorities:**

YOUTH: Promoting active citizenship, young people's sense of initiative and youth entrepreneurship including social entrepreneurship

**Main Topics:**

Creativity, arts and culture

Green skills

European identity, citizenship and values



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**P(3) Partner:**

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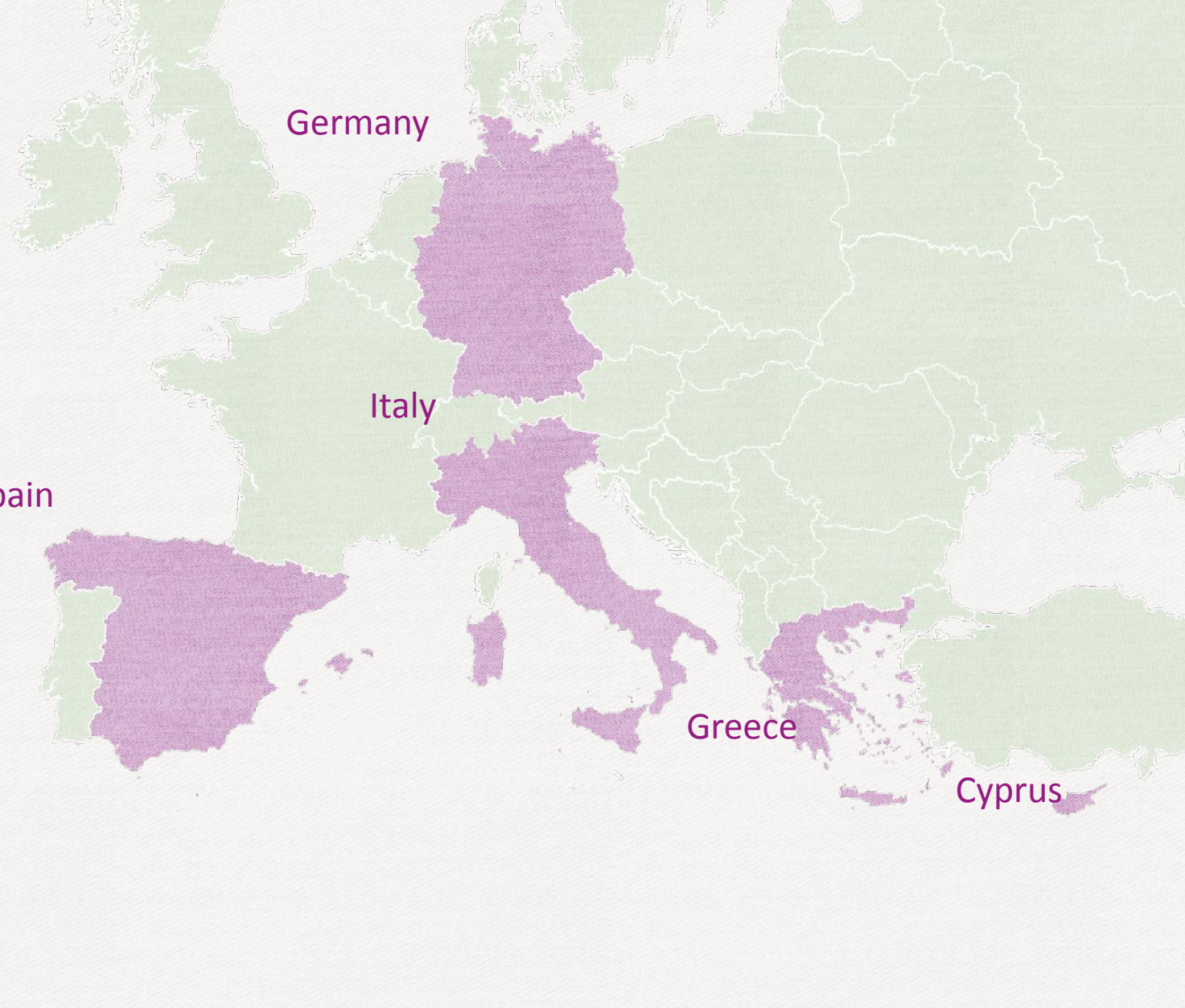
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**P(6) Partner:**

POLITECNICA DE VALENCIA (UPV) – Valencia (Spain)



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# The Impact of the Fashion Industry on Our Environment

Fast fashion, the danger of fashion

Water usage in the fashion industry

Presentation

Debate

Group discussion

Carbon footprint

Chemicals in the fashion industry

Textile waste



# Discover and Uncover



critically analyse the relationship between fashion consumption and its impact on the environment

understand how our actions impact on our planet



encourage working together for more creative ideas and expressions

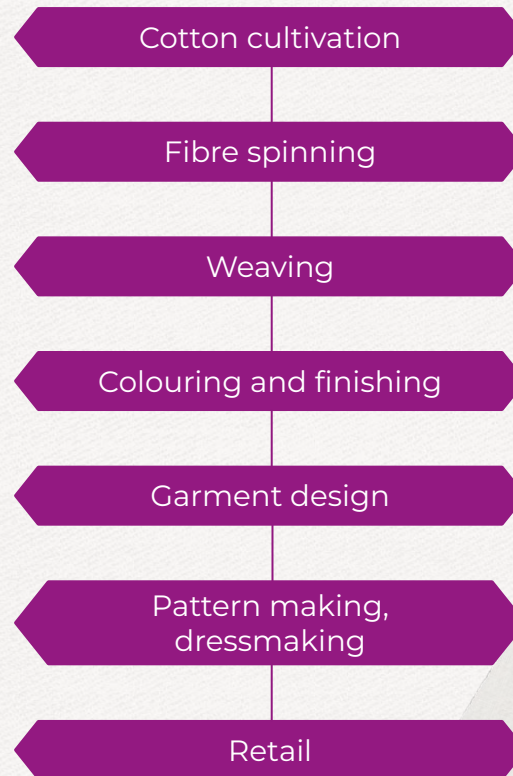


# Who is who?



Source: [Freepik](#)

Production process of a 100% cotton T-shirt





# When was the last time you bought a T-shirt?

This week

Last week

Last month

2 months ago

I no longer remember



Source: [Freepik](#)



# Fashion and Textile sector-

## Introduction

- The fashion industry is the **second most polluting industry** in the world, after the oil industry.
- The textile sector is worth more than \$2.5 trillion and employs more than 75 million people around the world.
- The constant creation of **trends** and the rapid obsolescence of fashion play an important role in the high **consumption of natural resources**, the incessant **consumption of water and pollution**, and the release of **greenhouse gases**.
- Environmental damage increases as the industry grows.



Source: [Freepik](#)



# Fast Fashion-

## The Danger of Fashion



Source: [Freepik](#)

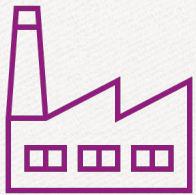
**Fast fashion** describes a business model in the fashion industry characterised by the fast and affordable production of garments in response to the latest trends.

This rapid production and obsolescence of garments, the abundant use of natural resources, water and chemicals has a significant **impact on the environment**.



# Fast Fashion-

## Data



100 billion garments  
are produced each year



52 micro-collections per  
year are released by  
fast-fashion brands  
instead of the usual 2  
seasons



400% more clothes  
are produced now  
compared to 20  
years ago



7 times  
in a average, a garment  
is worn before being  
thrown away



11 kg textile waste  
is generated per  
person per year in  
the EU in average



At least 50%  
of clothes in our  
wardrobe are not  
worn

Source: [Sustain Your Style](#)



# Fast Fashion

## The effect of the best-known brands

Traditionally, fashion brands have launched **2 fashion collections a year**, spring-summer and autumn-winter, nowadays, **fast fashion has changed this**.





# Water usage in the fashion industry

The textile and fashion industry uses approximately **79 billion cubic metres of water per year**, which accounts for **20% of the wastewater generated annually**.

Industrial textile processes such as scouring, washing, bleaching, sizing, dyeing, and finishing, use a lot of fresh water and leave a lot of wastewater with different **chemicals** like inorganic finishing agents, surfactants, chlorine compounds, salts, total phosphate, and polymers and organic products.

More than **8000** different chemicals are used in the textile industry.



Source: Canva

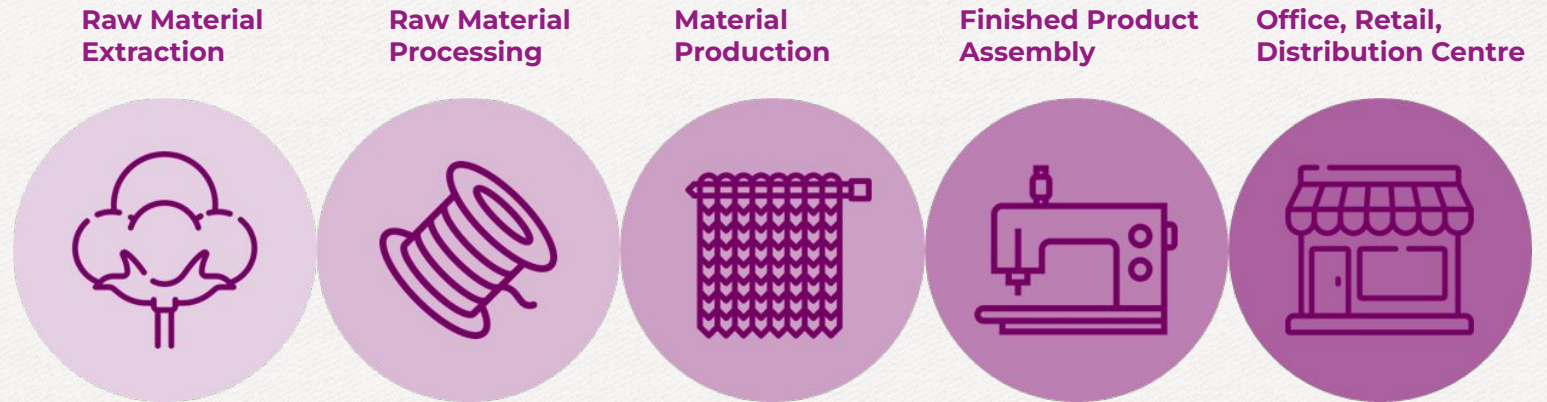


# Water consumption for cotton production

The majority of global water use in the fashion industry is related to **cotton cultivation**. It is estimated that current textile production uses 44 billion litres of water per year for irrigation (about 3% of global irrigation water use), and **95%** of this use is related to cotton production.

Cotton crop accounts for 88% and 92% of the total water used to produce a T-shirt and a pair of jeans, respectively.

Cotton has the highest water demand of any fibre used in fashion.





**True or False:** it's time to show what you've learned



Source: [Freepik](#)



# Carbon footprint of the textile industry

The Fashion industry is **responsible for 8-10% of global CO<sub>2</sub> emissions**, mainly due to its long supply chains and energy-intensive production methods.

It is estimated that 2 out of every 3 tonnes of CO<sub>2</sub> produced is associated with the production of **synthetic textile fibres**.

It is estimated that the production of a cotton T-shirt produces 2.1 kg of CO<sub>2</sub>, while the production of a polyester T-shirt produces a total of 5.5 kg of CO<sub>2</sub>.

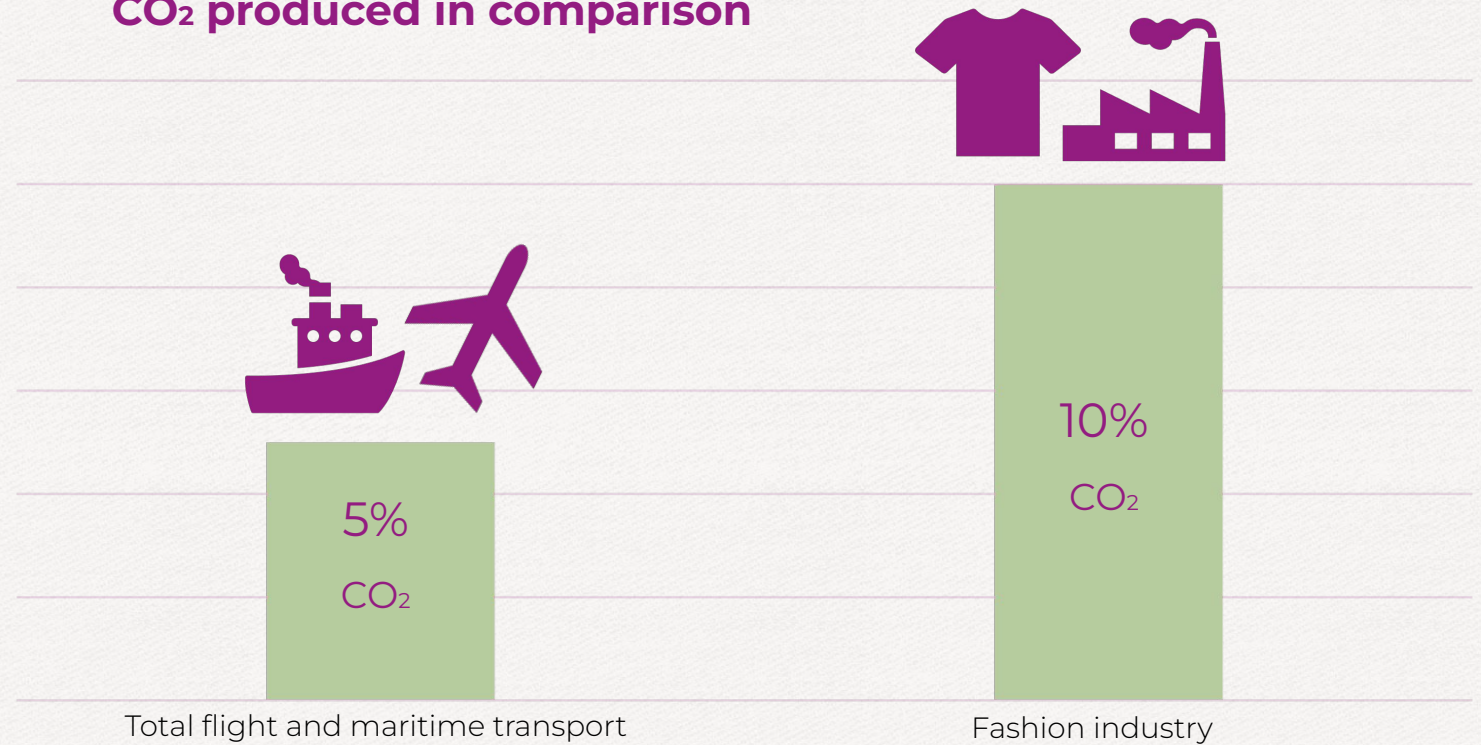


Source: [Freepik](#)



The transport industry is currently being heavily criticised for its CO<sub>2</sub> generation. Textile industry generates twice as much due to the mass production of clothing.

### CO<sub>2</sub> produced in comparison





# Chemicals in the fashion industry

From fabric production to dyeing and finishing, the fashion industry has adopted a range of chemicals that unfortunately threaten the health of our ecosystems.

Textile industry uses around **15,000 different compounds throughout its production chain.**



Source: [Freepik](#)

## Human health

Several chemical compounds present a risk to human health.

The **contact of clothing with the skin** can cause dermatitis, urticaria, eczema...

Inhalation during textile manufacturing may cause **respiratory disorders.**

The European Union Directive (2002/61/EC) commits to restrict the marketing and use of certain hazardous substances and certain dyes in textile products due to their carcinogenic character.

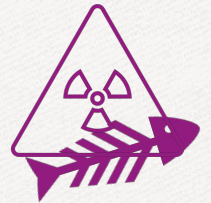


# Chemicals in the fashion industry



Source: [Freepik](#)

## Environmental impact



The presence of toxic compounds in industrial wastewater poses a **risk to marine fauna**, as well as to humans feeding on these animals.

Wastewater can also **contaminate irrigation systems in agricultural fields**.

Textile wastewater is characterised by strong colouration, high salinity, high temperature, variable pH and high chemical oxygen demand (COD).

The undesirable colour of textile wastewater, the presence of various organic substances and the presence of suspended solids cause turbidity in the water which can prevent the correct **photosynthetic process** of the aquatic flora and thus alter its life cycle.





Source: [Freepik](#)

# Find the most dangerous chemicals

How many are you able to find?



# Textile Waste

The accelerated consumption of fashion brought about by fast fashion has meant that people are constantly throwing clothes into landfills.

People now wear clothes 7 to 10 times before throwing them away, a 35% reduction in just 15 years.

**101 million tonnes of textiles end up in landfill each year.**

Only 15% of discarded textile garments are recycled. This is mainly due to the **difficulty of textile recycling** due to the presence of different materials in the same garment.

Europeans buy 26 kg of textiles and throw away a total of 11 kg each year.





# Microplastics

Microplastics are **tiny plastic fragments less than 5 millimetres** in length that represent a potential threat to the ocean and its aquatic ecosystems.

**35% of the microplastics** released into the environment come from the **washing of synthetic garments**; during this process, the textile fibres rub against each other, causing some of them to detach from the garment and be washed away by the wastewater.

It is very important to read and follow the washing instructions on garment labels to avoid the generation of these microplastics.



Source: [Freepik](#)





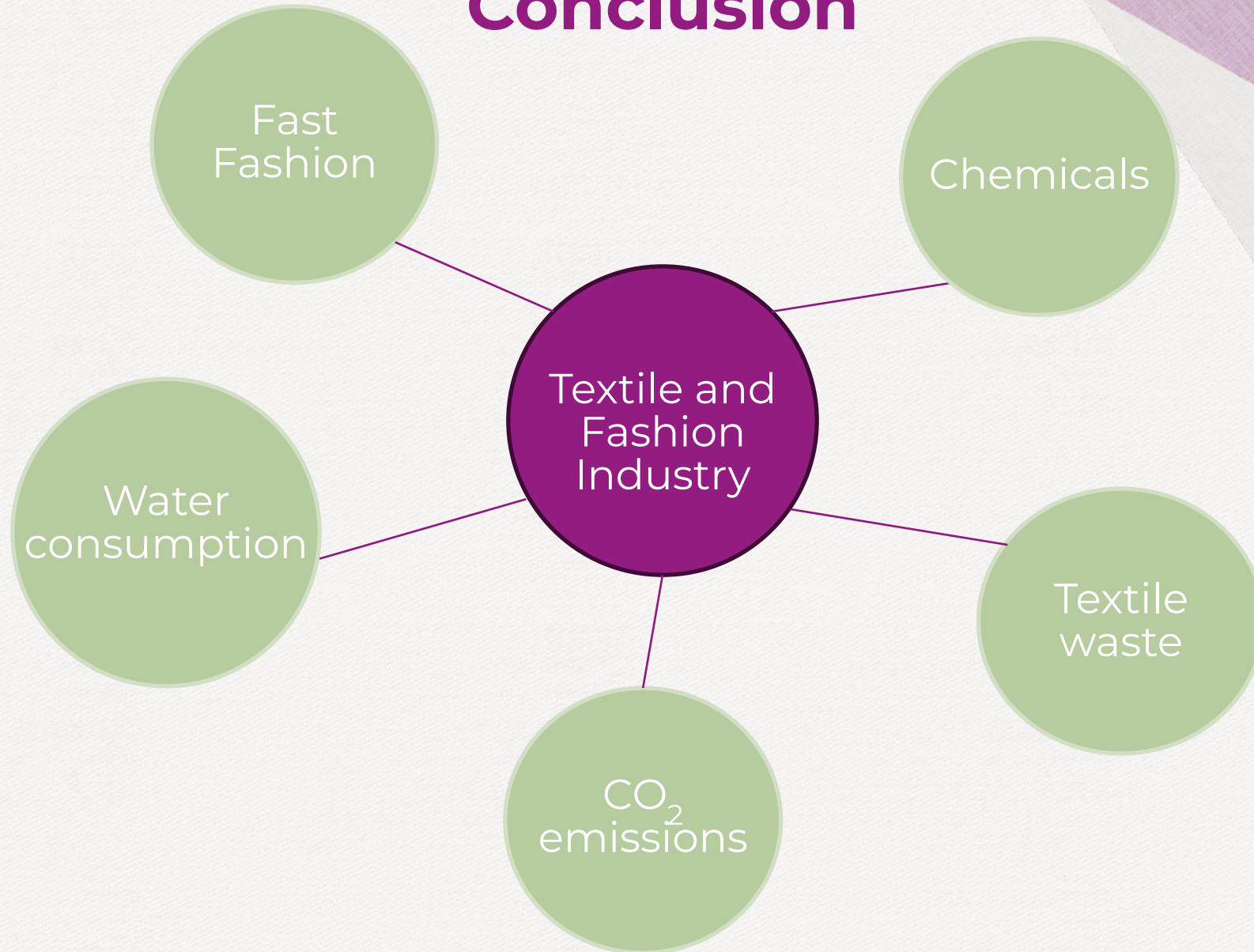
## Analyse your label!

Do you know what each symbol on your T-shirt label means?

Source: UPV



# Conclusion





We are interested in your opinion!







**“The most environmentally sustainable jacket is the one that’s already in your closet”.**

***– Lisa Williams, Patagonia’s Chief Product Officer***



The background of the slide is an abstract composition of overlapping, semi-transparent shapes in various shades of purple and green. The shapes are organic and flowing, creating a sense of depth and movement. A central white rectangular box is positioned in the middle of the slide, containing the text "Thank you!".

**Thank you!**





# ReFashionized

Fashion Evolution towards Sustainability

[www.instagram.com/refashionizedproject/](https://www.instagram.com/refashionizedproject/)  
[www.facebook.com/Refashionized](https://www.facebook.com/Refashionized)

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