

Fashion and the Environment

Ros Studd and Elahe Alavi

Zero Waste Hub, Edinburgh

24th March 2023



39% of people say that while they care about the environment,

it's never occurred to them that their clothes might have an impact.

Soil Association certification research 2019.

Take action on plastic, ~~mend~~ FIX your clothes!



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2019



**“In 2023...make
do and mend will
be back on trend”**

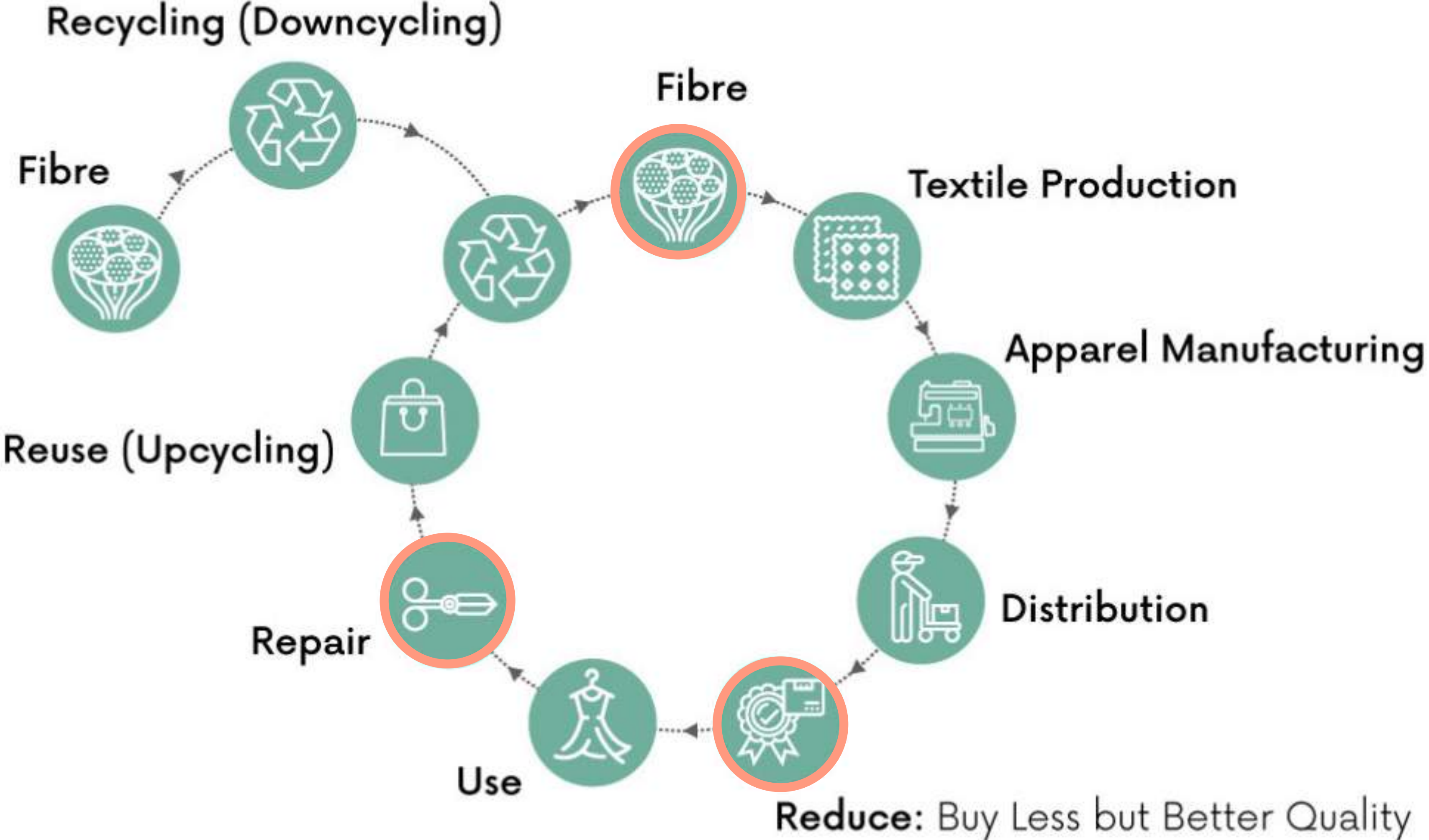
The World Ahead 2023 - The Economist,
five stories to watch out for.

**Be ahead of the pack and
learn more through us.**

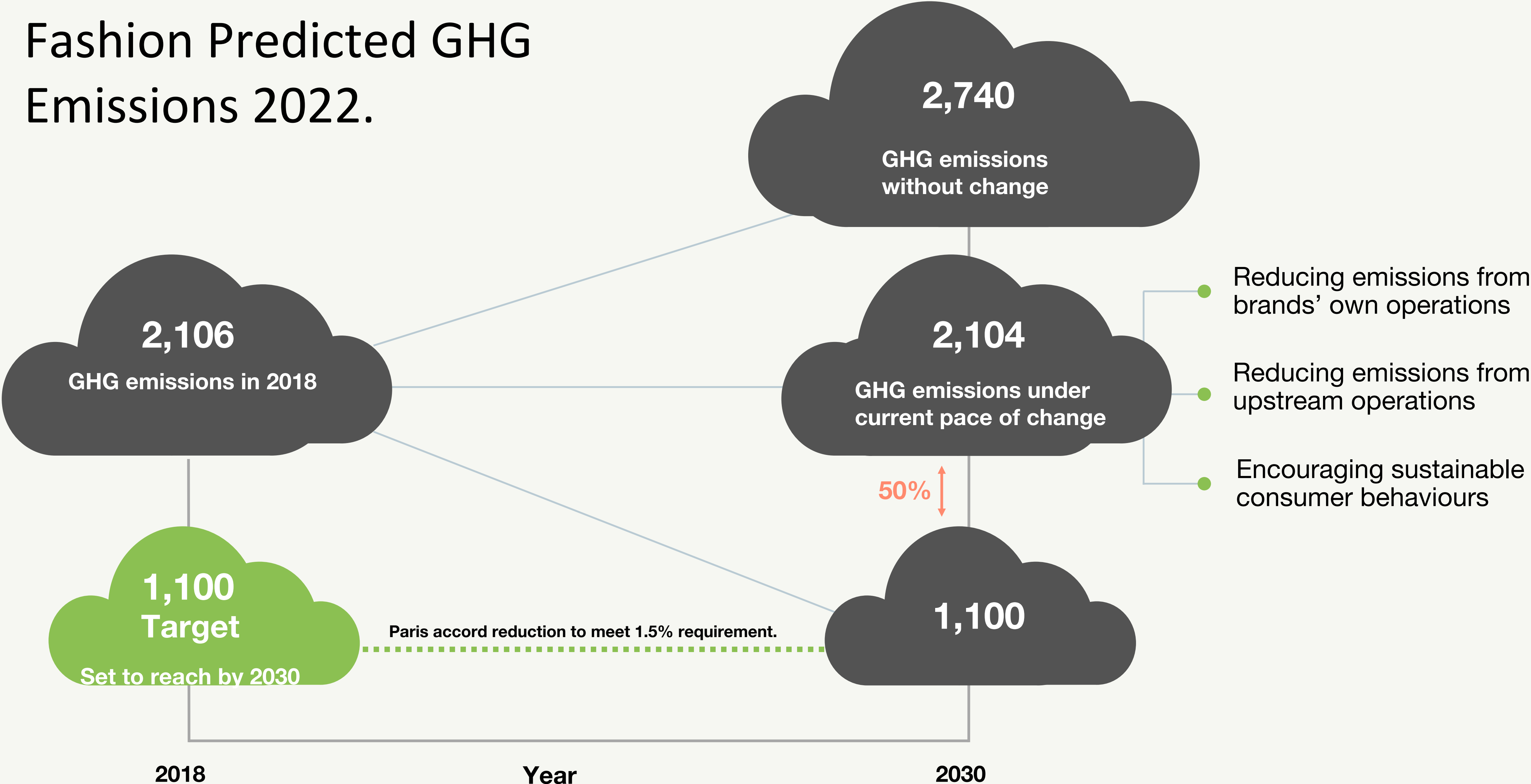
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2023

The Circular Economy



Fashion Predicted GHG Emissions 2022.



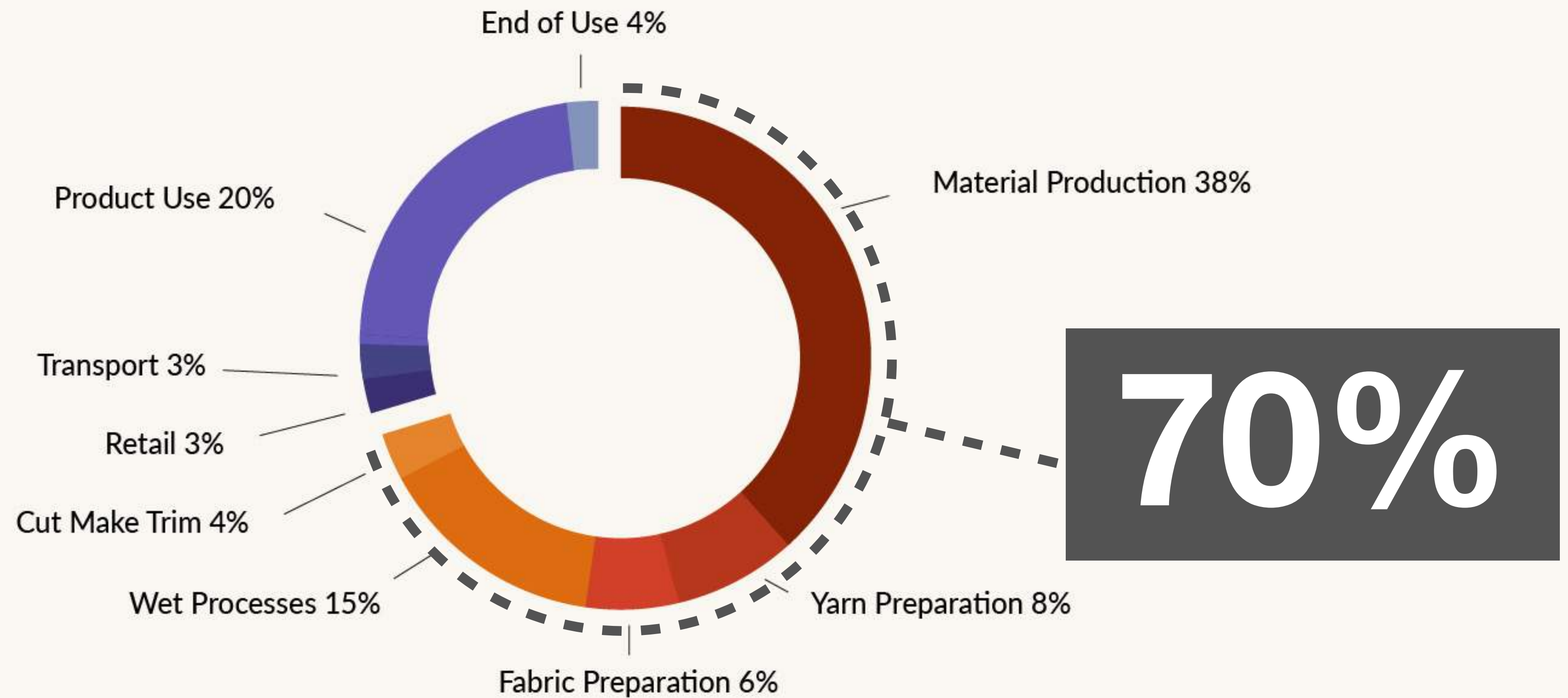


Fashion production is responsible for 17-20% of global water pollution.

Blue rivers and water as strong as bleach: The 'destructive' impact of fast fashion in Africa. [EURONEWS](#)

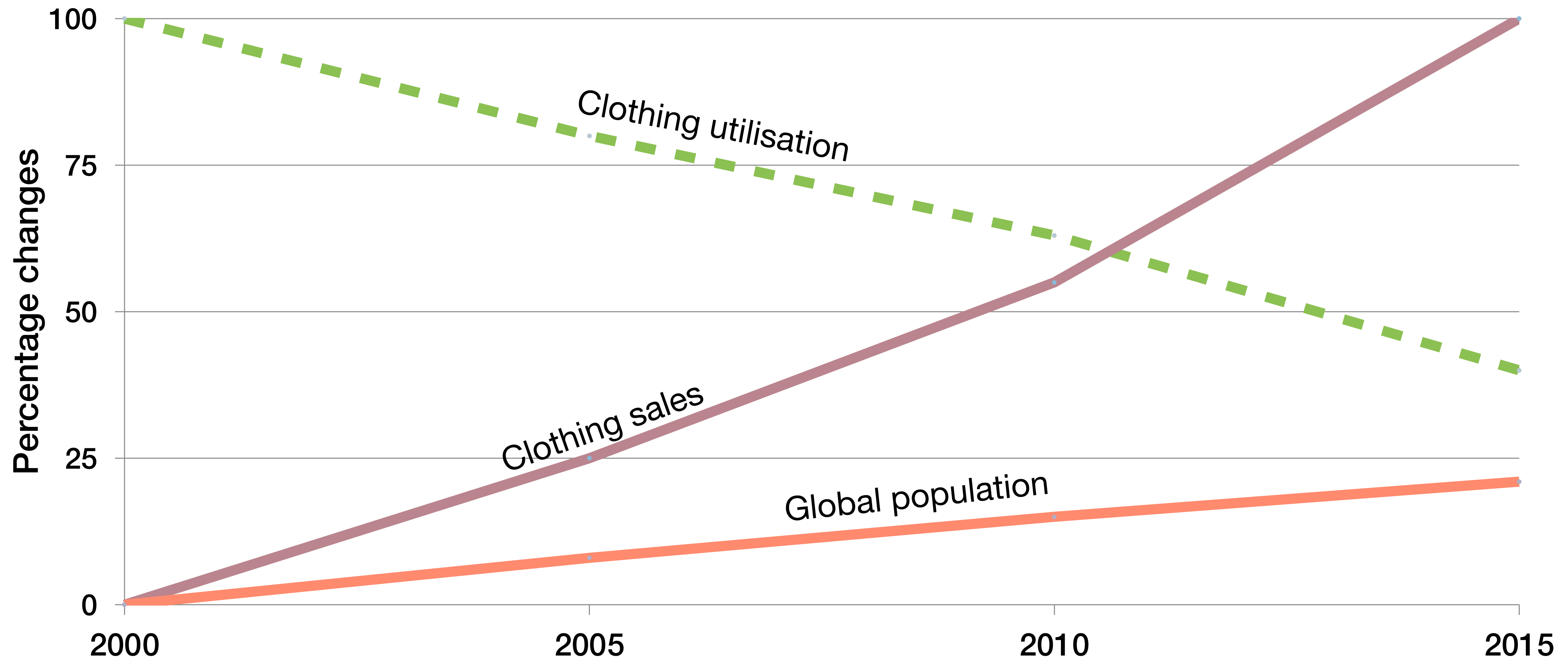
The Carbon Cost of Apparel Industry

% of CO2 emissions generated by value chain



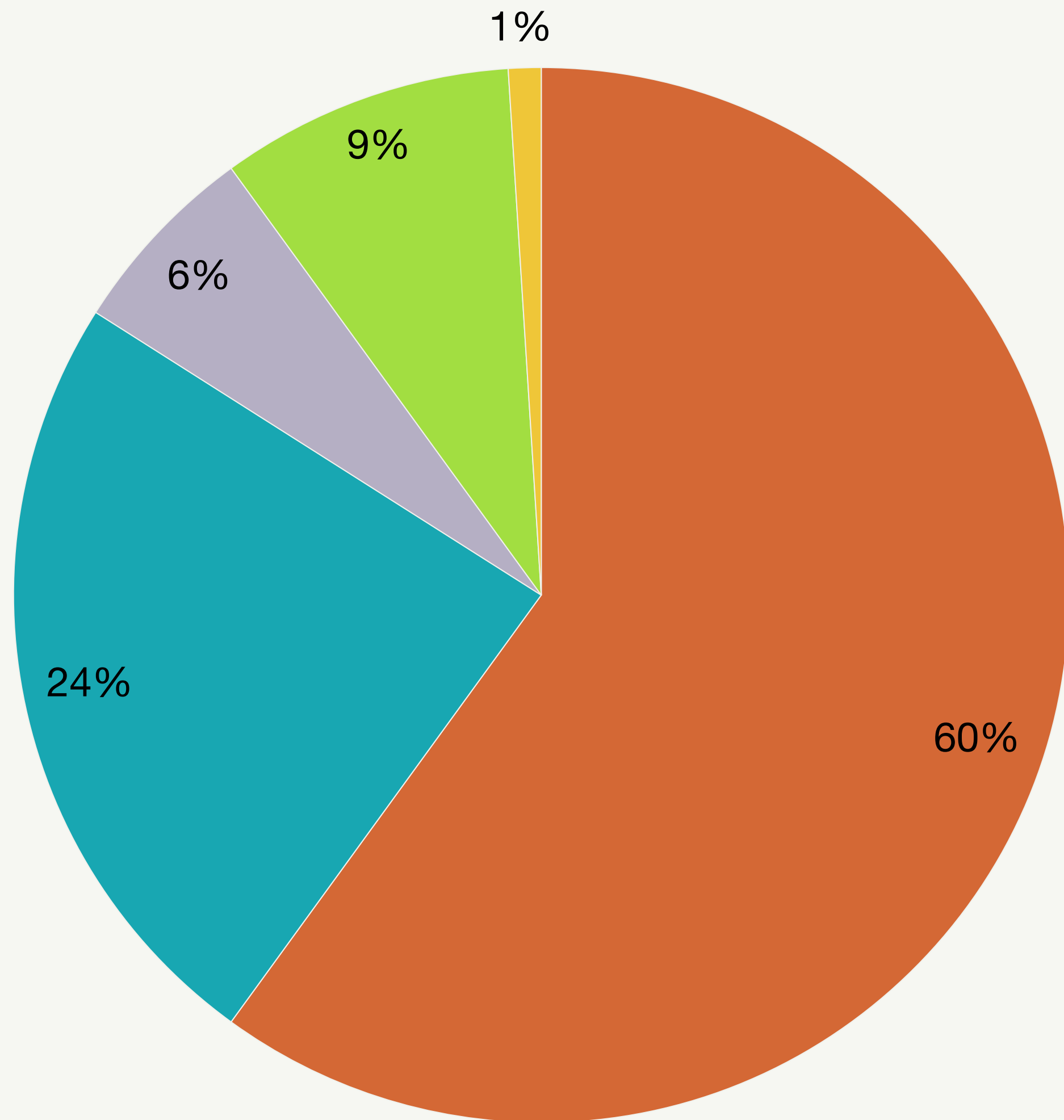
Over 70% of carbon emissions derive from the **MAKING** of your clothes.

Key fashion indicators 2000 - 2015



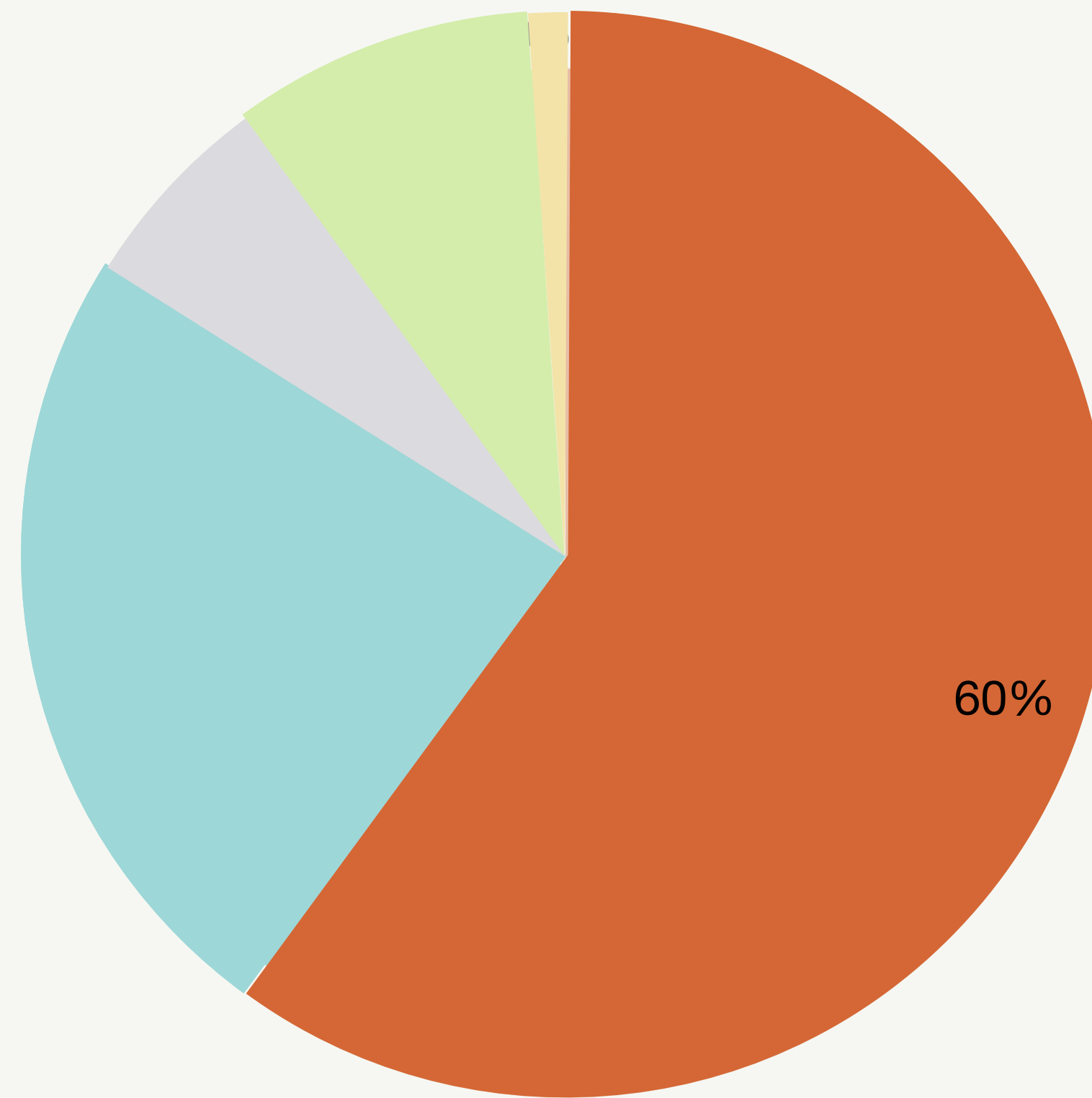
"If the number of times a garment is worn doubles, the greenhouse gas emissions over its lifetime would be 44% lower -
Ellen MacArthur Foundation."

CO₂



- Synthetic fibres (polyester, polyamide, acrylic, nylon etc.)
- Cotton
- Other Fibres (Linen, Silk, Hemp etc.)
- Cellulosic fibres (Viscose, Modal, Acetate, Bamboo etc.)
- Wool

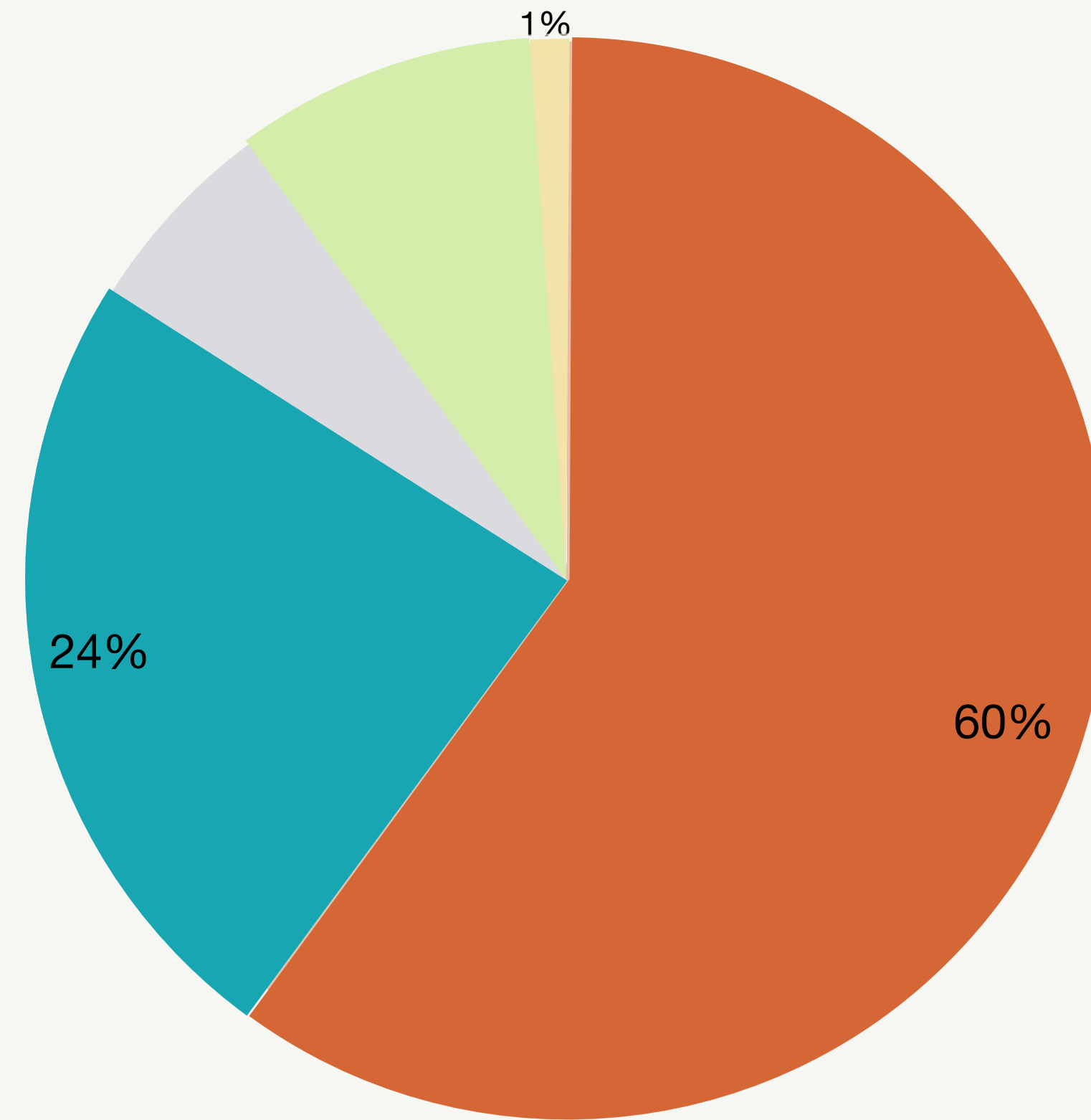
Fibres in Fashion Clothing 2022



60% Synthetic fibres

- Cheap, strong, tear resistant, durable.
- Water-repellent, lightweight and easy-care
- **Can be engineered for purpose.**
- **Non biodegradable**

Fibres in Fashion Clothing 2022



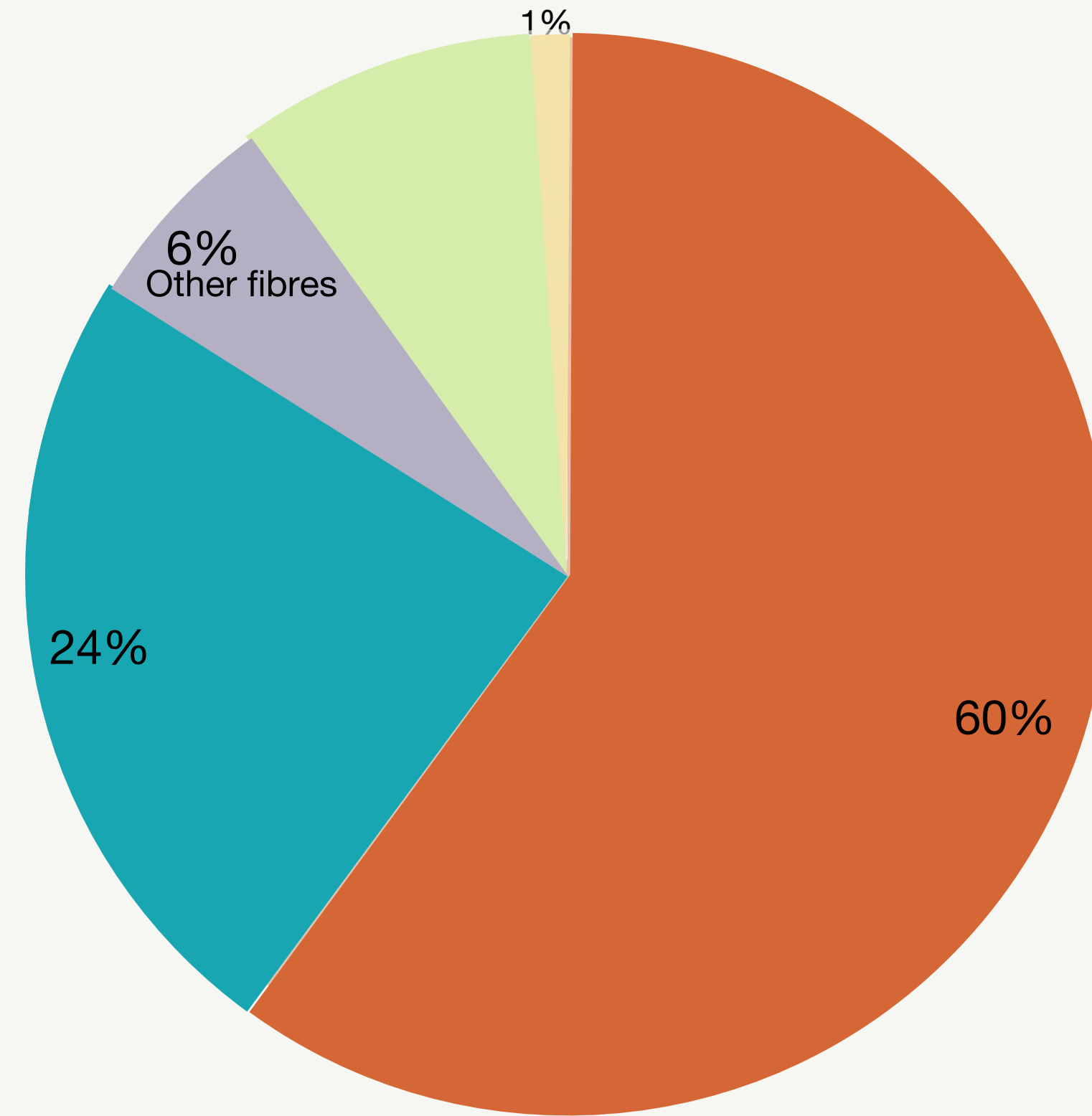
24% Cotton

- Soft, good drape, strength and durability
- Absorbent, breathable, long-lasting
- Biodegradable

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9% Cellulosic fibres

Soft, fine, smooth, good drape

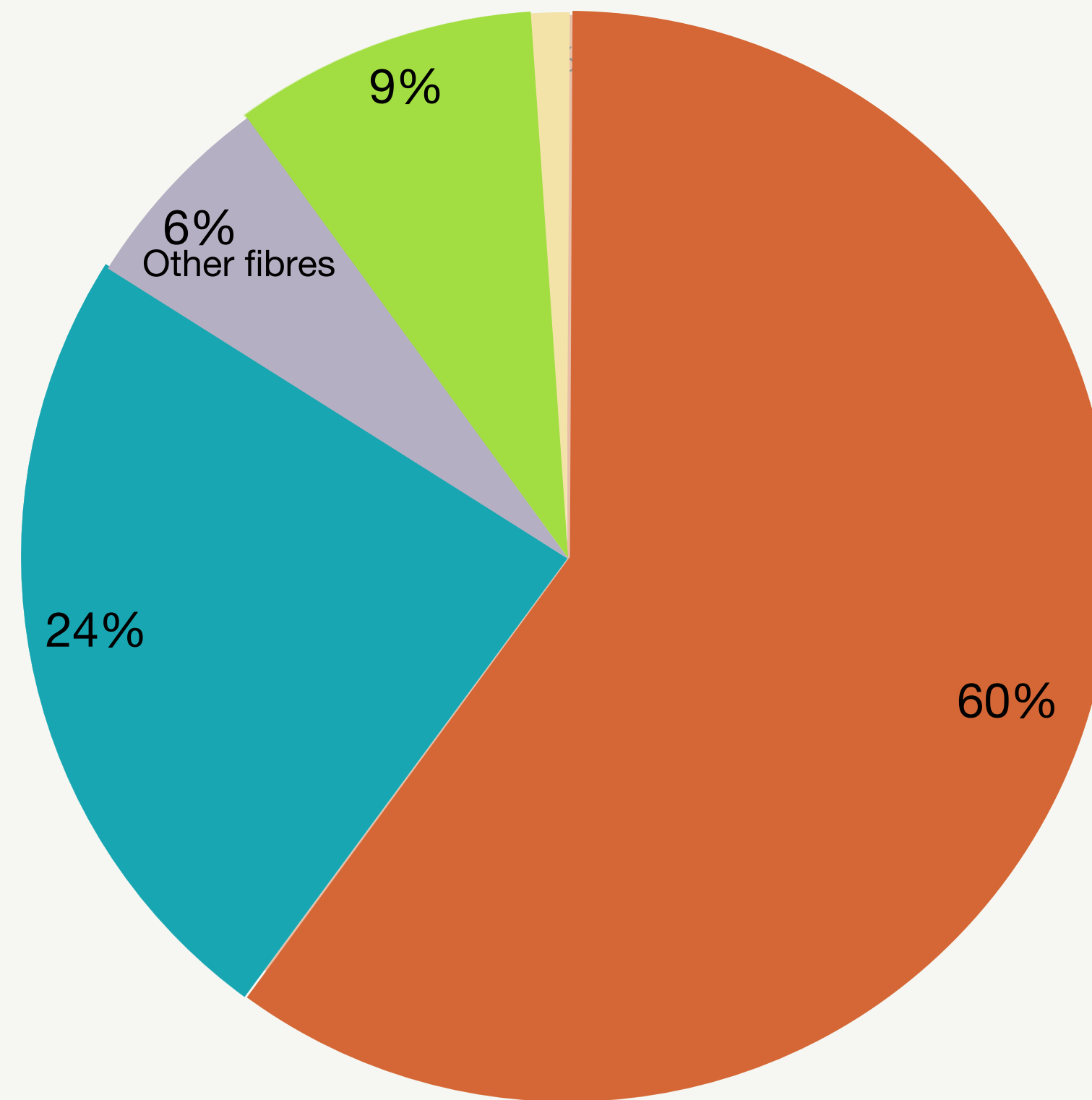
Naturally breathable, absorbs up to 14% water vapour

Lower durability.

Biodegradable (but chemical content depending on production).

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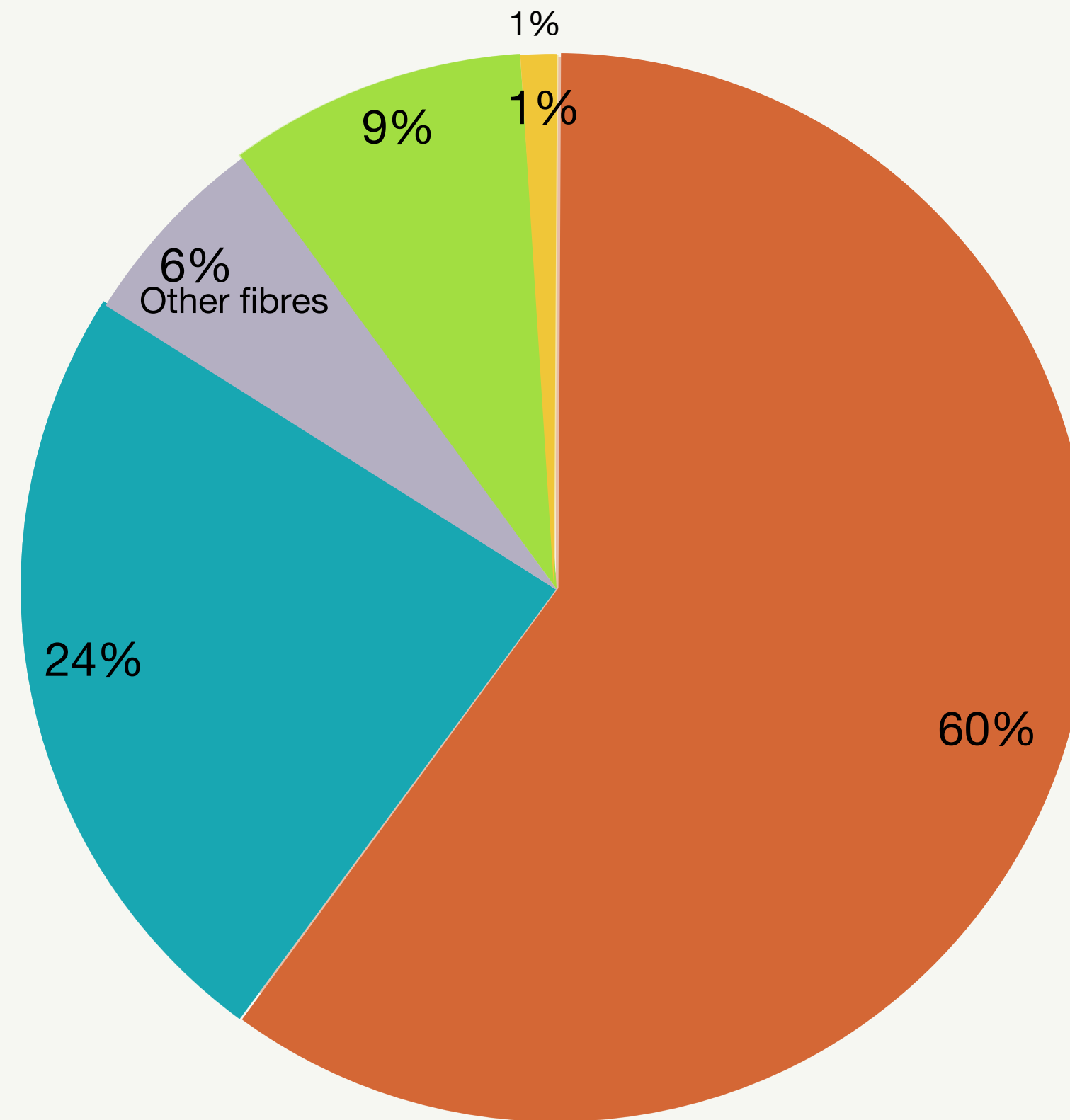
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1% Wool

- Naturally insulating.
- Good recovery
- Anti-microbial
- Breathable
- Hydrophobic and hydrophilic.
- Biodegradable

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Fibres in Fashion Clothing 2022

You can make plastic bottles into clothing



Polyester - PET



But you can't make polyester clothing into clothing (yet)

Cotton - the down side.

- Cotton production uses 16% of global pesticides and 6% of global insecticides.
- 73% of the land growing cotton is irrigated and often in communities where water is a scarce resource.
- Cotton garments are water hungry in production too. It leads to statements like “it takes 2,700 litres to make one T-shirt, 17,000 litres for one pair of jeans.
- 20% of cotton production comes from the Xinjiang region of China where Uighur Muslims have been in forced labour conditions.



**China, India,
United States,
Brazil, Pakistan,
Uzbekistan,
Turkey, Australia,
and multiple
countries on the
African continent.**

Cotton choices

- **Organic cotton** benefits are: crop rotation which protects the soil and it can retain up to 25% more moisture; elimination of synthetic pesticides and insecticides; more financial and food security for farmers; no waterway pollution.
- **BCI. Better Cotton** is the world's leading sustainability initiative for cotton. The mission is to help cotton communities survive and thrive, while protecting and restoring the environment.
- **Fairtrade Cotton** encourages sustainable cotton production and economic benefits through a fair-trade minimum price.



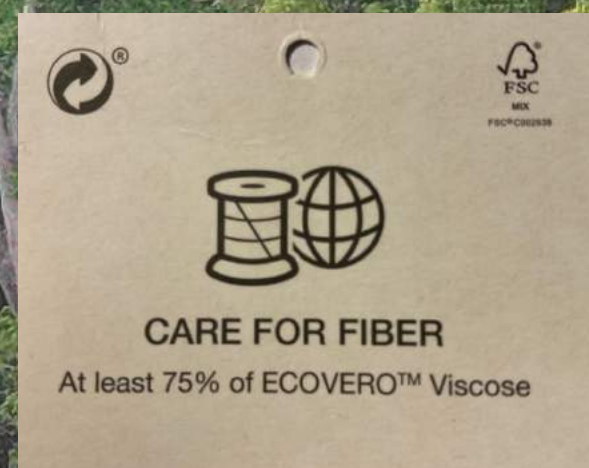
Cellulosic fibres

Cellulosic fabrics, like viscose, acetate, modal are 8% of fashion fabric fibres but last year 200 million trees per annum were felled. Many trees are now from indigenous and protected forests.

So we chop the trees that absorb the carbon to wear the clothes that create the carbon?

Buy Branded Tencel or Circular production products

Buy FCS or PEFC for sustainable wood sourcing.



Development of the closed loop system



Climate change

Action on Fashion

- **Cut consumption**
- **Buy better quality**
- **Buy second hand**
- **Wear longer (will I wear this #30times?)**
- **Repair**
- **Think about disposal**





[Mending Tutorials](#) ▾

[Educational Resources](#)

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[Testimonials](#)



Repair What You Wear

Fashion generates 10% of global carbon emissions.

Mending is an eco action. Mending saves you money.

[MENDING TUTORIALS](#)

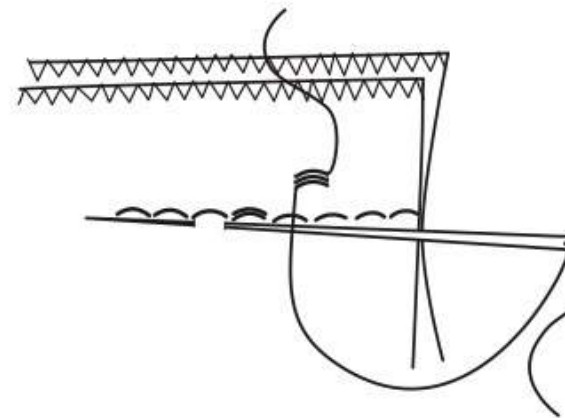
[DOWNLOAD WRITTEN INSTRUCTIONS](#)



Workshop One

Threading a needle, the easier way....

1. Thread no longer than your arm.
2. Lick your first finger and thumb in your left hand and pull the end of the thread to make it flat.
3. Steady your hands on a flat surface.
4. Hold the needle in your right hand, and lower the eye of the needle over the thread.
5. Pull 1/3rd of the thread through the eye of the needle.
6. Sew with a single thread and let out additional thread as you require.

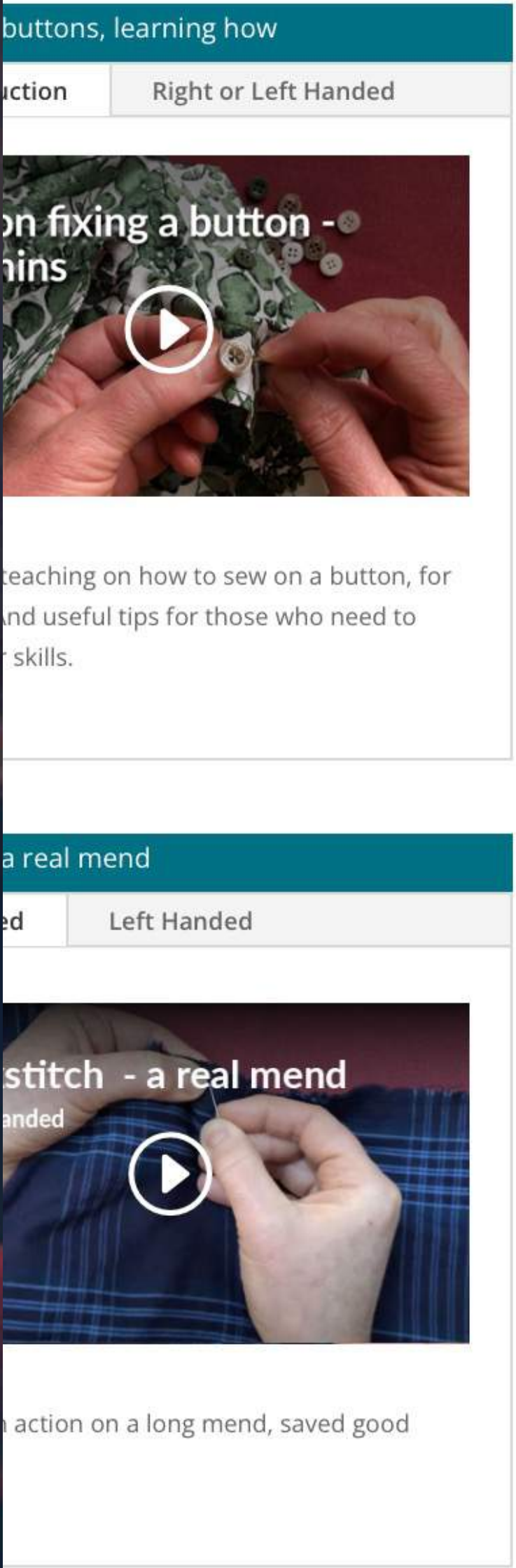


Fixing a seam, backstitch

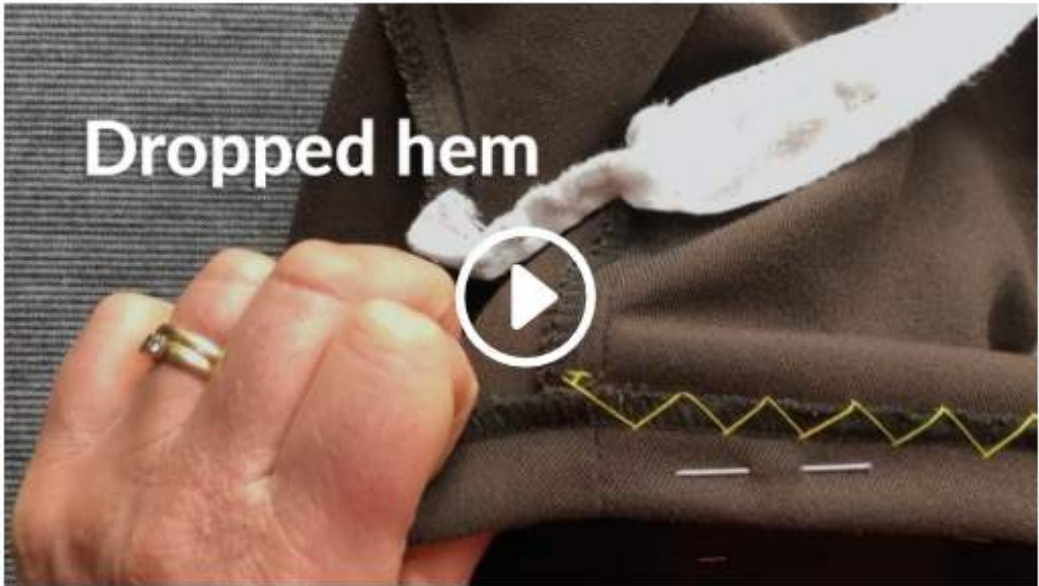
1. Turn the garment inside out and pin the split together, if necessary. It may help to put small pieces of tape on material with a pencil or marker to show you where to sew.
 2. Secure your thread near the hole in the seam, you won't be noticable. You should sew over about 1cm of remaining seam before the split starts.
 3. Looking at the diagram to understand the stitch, push your needle up at 2nd dot, push your needle down at the 1st dot, bring the needle toward the top at the 2nd dot. Back down at the 2nd dot etc.
- Do these steps until you have closed the hole. Secure your stitch, trim thread and finish.



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School uniform time again?
**Remember - mending is
not a sign of poverty.**





Half term activities are also on our website

Learn to do running Stitch

Right Handed Left Handed



Learn to back Stitch

Right Handed Left Handed



Learn to cross stitch no.1

Right Handed Left Handed



Learn to cross stitch no.2

Right Handed Left Handed



Learn to blanket stitch

Right Handed Left Handed





“Thanks to your fantastic resources and courses I’ve now changed my SOWs for our Year 7. From September our students will be taught basic sewing and mending skill in their Textiles lessons”.

- Maria
Secondary School Teacher
Cambridge

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Mending waterproof jackets with nylon tape

Right or Left Handed



Sewing through waterproof outdoor jackets is not good, it tears the waterproof membrane, but using a patch and replacing it when necessary will keep your stuff in use – and that’s the aim.

Mending sports leggings

Right or Left Handed



A useful technique to fix those small holes, so they don’t become large ones – obv’s. “Wooly nylon” thread is worth investing in.

Mending running shoes

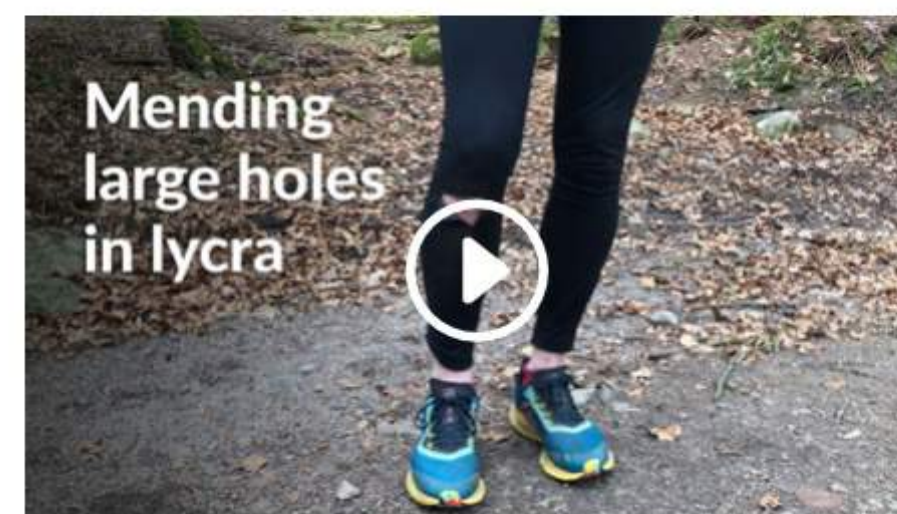
Right or Left Handed



A really popular mend, good to see the runners keep running!

Mending big holes in lycra

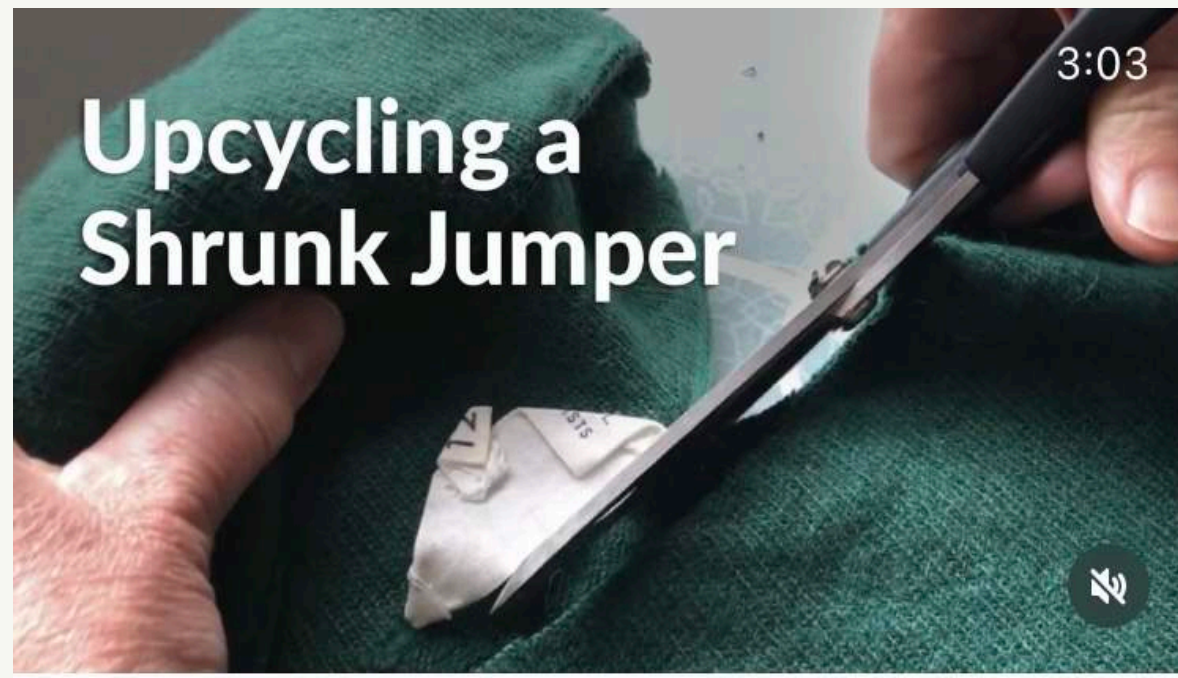
Right or Left Handed



Yes, mended two years ago, no-one has noticed this mend, even though it’s huge! A great stitch to learn for big stretchy tears.

“Thank you for this video. I repaired my daughter's stretchy workout shorts using your techniques.”

Mark



“Just mended a lot of moth holes, now I can wear my favourite jumper again (finally)! Thank you so much, you are a hero xx”





**The POWER is
in your hands!**

**AI won't be replacing
repair skills....**

Learn from repairwhatyouwear.com
and be skilled up for life.

Hand skills develop:

- Fine motor development
- Problem solving
- Concentration and resilience
- Understanding
- Financial management
- Future work skills
- **AND THE PLANET**



Repair is a skill for life, the planet and
our future.

repairwhatyouwear.com