

# THE ECOCHIC DESIGN AWARD UP-CYCLING DESIGN TECHNIQUE





Up-cycled outfits in the finale at 'Redress on the Runway'.

## WHAT IS IT?

Up-cycling is the recycling of a material into a product of *higher* quality.

## WHY DO IT?

Millions of tonnes of textiles are wasted every year during textile and garment production, before the clothes have even reached the consumer. It is estimated that approximately 15 percent of textiles intended for clothing ends up on the cutting room floor.<sup>1</sup> This means that many textiles intended for clothes become cut-and-sew or end-of-role textile waste.

When textiles are wasted so too are the resources, both natural and human labour resources, which were invested and imbedded into the textiles. By up-cycling textile waste, you can prolong the textile's lifecycle, slow down unnecessary textile production and reduce the demand on natural resources.

In addition, by up-cycling damaged and redundant textile waste materials, you can give these waste materials additional value as products of higher quality. This prevents them from being downcycled or discarded.

<sup>1</sup> Timo Rissanen, 'From 15% to 0: Investigating the creation of fashion without the creation of fabric waste' Presenter, Kreativ Institut for Design og Teknologi, 2005

# HOW DO I DO IT?

## 1 FIRST DECIDE

First decide if you want to make unique pieces or a reproducible collection. This decision will impact your design and choice of waste materials, because up-cycling can take many different directions depending on the textiles and design used.

### EXPERT'S TIP

— Filippo Ricci, Co-founder of From Somewhere & Co-curator of Estethica —

It is possible to make large volumes of consumer-friendly collections by up-cycling large volumes of textile waste from the textile industry.



Image credit: Goodone

Goodone's collections combine recycled textiles with new textiles, which allow them to standardise the designs so that they are reproducible.



Wister Tsang, The EcoChic Design Award Hong Kong 2012 Winner, made this reproducible design with Esprit's surplus factory textiles.

## 2 SOURCE

Look at your own textile waste streams or those of the wider fashion industry to source cut-and-sew waste, end-of-rolls, sample yardages or damaged textiles. Look for quality textiles, whatever the size, shape or style.

Using end-of-roll textiles allows you to work with larger pieces of textiles and to make more reproducible designs, yet still allowing for each individual piece to be subtly unique. Using cut-and-sew waste will allow your imagination to grow.

### EXPERT'S TIP

— *Nin Castle, Co-founder & Creative Director of Goodone* —

Be aware of the quality of the textiles that you use. Ensure that the textile waste you use is good enough for what you wish to make. If you are putting your time and energy into up-cycling textiles, you want to make sure their quality is good.



Janko Lam, The EcoChic Design Award Hong Kong 2011 Winner, used surplus factory textiles stock to create this Cheongsam style up-cycled dress.



Mei Hui Liu of Victim Fashion Street used a patchwork method of different types of vintage textiles together with her own studio off-cuts to create this unique garment.

*Image credit: Victim Fashion Street*

# 3 NOW DESIGN

If you are working with cut-and-sew waste look at your textiles and...experiment! Puzzle the pieces together and let the textiles form your pattern. Or you can layer the cut-and-sew waste textiles to create volume. If you want to make reproducible designs, then work with colour blocking and patterns that can work with various types of textile combinations.

If you are working with a larger piece of textile waste, such as end-of-roll textiles, simply work with the dimensions of the textile.

## EXPERT'S TIP

— *Nin Castle, Co-founder & Creative Director of Goodone* —

It's really important to have the design as the pinnacle because if you don't have the design, no one's going to want it. Designs should be informed by the use of recycled materials, not restrained by it.



Image credit: Victor Fraile @ Studio East

French designer and The EcoChic Design Award 2013 2nd Prize Winner, Louise de Testa created this up-cycled collection by up-cycling end-of-roll textiles and cut-and-sew waste from her own production.



*Kelvin Wan, The EcoChic Most Promising Student Award Hong Kong 2012 Winner, used a patchwork method of surplus factory waste to create this up-cycled outfit.*



*Image credit: People Tree*

*British sustainable brand, People Tree up-cycled cast-off sari-silks into 'new' dresses for their Sari Collection. All resulting offcuts created in this process were used to make accessories.*



*Hong Kong designer and The EcoChic Design Award 2013 Finalist, Alex Law made this up-cycled couture coatdress by up-cycling denim production surplus and end-of-roll textiles.*



*Image credit: Lu Flux*

*British brand, Lu Flux uses pleating, knitting and antiquated patchworking to create quirky, up-cycled outfits.*

# 4 — FINALLY... MAKE !

Start patchworking, draping, interlacing or layering your textiles to create your up-cycled garment. Textile waste can often come in irregular shapes with uneven edges, so ensure quality finishing so that your finished garment does not look ripped or broken.

## EXPERT'S TIP

— *Orsola de Castro, Co-founder of From Somewhere and Co-founder and Curator of Estethica* —

If you want a garment to look exquisite, even if it might be made from textile scraps, then make sure all finishing and detailing are perfect.



*Eric Wong, The EcoChic Design Award Hong Kong 2011 Finalist, draped end-of-roll textiles to create this up-cycled dress.*



*Herlina Wijaya, The EcoChic Design Award China 2012 Finalist, layered cut-and-sew and end-of-roll textile waste that was sourced from her own production waste to create this up-cycled dress.*



Image credit: Maison Martin Margiella

Belgian brand, Maison Martin Margiella's SS 2014 'Artisanal' collection, with its contemporary couture look, was made using up-cycled luxury vintage fabrics.



Image credit: Mimi New York

US designer, Mimi New York uses up-cycled textiles to create one-of-a-kind, handmade, couture garments.



Image credit: Rebecca Earley

Rebecca Earley, a UK based researcher and award-winning designer, created this up-cycled polyester shirt by applying an over-printing technique on an used polyester garment to achieve a striking and more design driven effect. This up-cycled shirt formed part of her long-term research programme up-cycling textiles.



Image credit: Piece x Piece

American brand, Piece x Piece create new limited-edition garments by up-cycling textile sample swatches.

# ORSOLA DE CASTRO

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## ON UP-CYCLING DESIGN

Co-founder of From Somewhere and Co-founder and Curator of Estethica  
[www.fromsomewhere.co.uk](http://www.fromsomewhere.co.uk)



Image credit: From Somewhere

*“Up-cycling is a design solution to an environmental problem.”*

I've been using up-cycling design techniques in my sustainable fashion brand for over 15 years and am now happily known as 'The rubbish collector extraordinaire'. Up-cycling is an innovative method of recycling textile waste into products of higher quality, for example by up-cycling textile swatches, production off-cuts and end-of-roll textiles to create higher quality garments. Up-cycling ultimately slows down unnecessary virgin textile production. Up-cycling is an artisanal approach to textile waste that requires creativity without any industrial intervention and it is an innovative, design-led and inherently environmentally-friendly solution to textile waste. Up-cycling needs to be differentiated from recycling or down-cycling, where textiles are recycled but often into a product of lower quality.

Today, the fashion industry is increasingly over-producing garments and textiles. What is being thrown away is often beautiful and usable for designers who can approach such waste materials in a creative way. I believe that about 80 percent of textiles being thrown away are reusable.



*Image credit: From Somewhere*

#### **MY TOP TIPS TO UP-CYCLING DESIGN**

- 1. Always know what is on offer before you start designing**
- 2. Follow your own waste stream**
- 3. No scrap is too small**
- 4. Ugly can be beautiful too**
- 5. Finishing is the key to good design**

Mine and my partner Filippo Ricci's pioneering sustainable fashion brand, From Somewhere, has been up-cycling textile waste since 1997. All of our collections are made using luxury pre-consumer textile waste, such as swatches, production off-cuts and end-of-rolls. Our up-cycled garments are reproducible in large numbers, whilst still retaining elements of the unique. For example, our groundbreaking collaboration with Speedo, the world's leading swimsuit brand, represented up-cycling in its highest form. Here we created a limited-edition capsule collection using up-cycled surplus material from Speedo's 'LZR Racer' swimsuit, which we then retailed in London's high-end department store, Selfridges. We also designed a best-selling up-cycled collection for Tesco Clothing by up-cycling Tesco's very own leftover textile stock. These collections are just two examples that demonstrate that up-cycling can be commercially viable and available to the mass market.

# CASE STUDY

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## KELVIN WAN

*Kelvin Wan has been busy delving into his passion for sustainable fashion ever since he won The EcoChic Most Promising Student Award Hong Kong in 2012. Still relatively hot off the runway, in 2013, he and his design partner established their up-cycling menswear and womenswear brand, called Wan & Wong Fashion. For their brand, Kelvin sources pre-consumer textile waste from factories and fabric suppliers and the duo up-cycle scraps from their own production line to ensure their waste is low and their sustainability credentials are high.*



Image credit: Wan & Wong Fashion

### **Why is sustainable design important to you? How did you get into it?**

I got into sustainable fashion because of The EcoChic Design Award and I have not stopped learning ever since. I feel that sustainable fashion development and consumer interest in Hong Kong lags behind the West and I want to be a pioneer to push sustainable fashion through to Hong Kong consumers.

### **What does up-cycling mean to you?**

Up-cycling is one of the sustainable fashion techniques that I enjoy using because the textiles, which may be deemed to be useless by some, get transformed into valuable and beautiful collections.

### **How do you apply the up-cycling design technique in your collections?**

For my collections, I tend to use the patchwork technique to piece together textile waste, particularly on the garment's detailed areas.

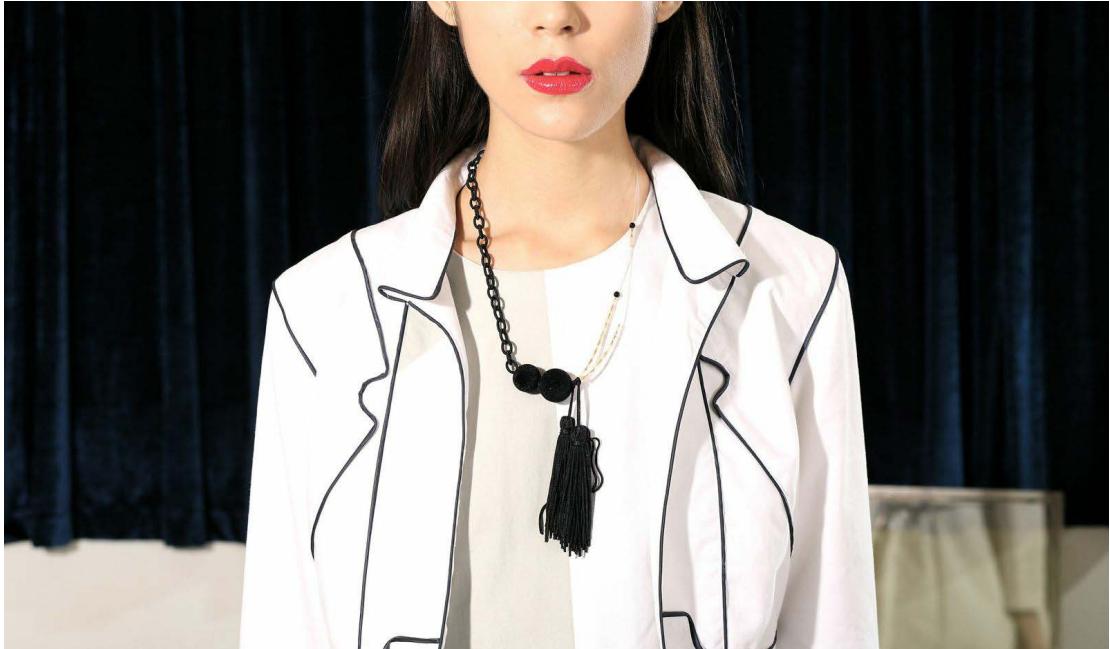


Image credit: Wan & Wong Fashion

#### **Which up-cycled design are you most proud of?**

This jacket is one of my favourite pieces because all the piping details were made using small pieces of scrap fabrics in order to define the garment's edges and to create an interesting detail for finishing.

#### **What do you find most challenging about up-cycling?**

I find sourcing textile waste the most challenging because there are a lot of factories that are not willing to supply their cutting room scraps to designers.

#### **What do you find most rewarding about up-cycling?**

I think the most rewarding moment is when people say they like my designs.

#### **What is your best resource?**

My best resource is to learn from other sustainable fashion designers, as well as through books.

#### **What is your top tip to the up-cycling design technique?**

My top tip is to spend more time to think before you make. Really think about how to apply the textile waste to the garment and how to add value and aesthetic to the textile waste before you make.

# CASE STUDY

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## CLÉMENTINE SANDNER

Clémentine Sandner, *The EcoChic Design Award 2013 Finalist*, has always been influenced by sustainable fashion design thinking. This interest planted ‘sustainability’ firmly in her design vision’s roots. She combines her long-held interest in collecting fabric scraps for up-cycling projects with her keen design eye. The results, which we witnessed on our own *The EcoChic Design Award 2013* runway, shout proudly for themselves.



Image credit: Victor Fraile@Studio East

### **Why is sustainable design important to you? How did you get into it?**

Sustainability is important in my life in general, not just in my fashion design. I think reusing is better than consuming and therefore it is natural for me to put my preference for re-use concept into my designs.

### **What does up-cycling mean to you?**

Textile up-cycling is an opportunity to bring textile waste back to life by creating something new, unique and in higher quality, instead of destroying it.

### **How do you apply the up-cycling design technique in your collections?**

I often up-cycle textural fabrics by stitching together scraps, end-of-roll materials, damaged fabrics and even by combining shredded secondhand clothes.



Image credit: Clémentine Sandner

#### **Which up-cycled design are you most proud of?**

I'm most proud of this dress, which I made by up-cycling end-of-roll silk. I gave the dress texture by felting pieces of wool threads into the silk and then I added fabric scraps and golden laces from factory samples.

#### **What do you find most challenging about up-cycling?**

The most challenging thing is to focus on quality because it is crucial to create a garment that will last in time, which is the very essence of sustainability.

#### **What do you find most rewarding/ inspiring about up-cycling?**

I love the fact that you are able to 'reincarnate' something old, which no one wanted anymore, into something unexpected. Because you have to deal with what you can find, this sometimes makes you imagine something that you wouldn't have had to otherwise.

#### **What is your best resource? How/where do you learn more about sustainable design?**

I love reading books and articles and watching documentaries about recycling and sustainable production in general, not just related to fashion. These give me ideas and make me understand that sustainability is a big subject, which can transpire into a lot of different ways of life. But when it comes to design, the best way for me to learn is to experiment with techniques by myself and to try to find new ways of creating fabrics, because this is the first step of my design process.

#### **What is your top tip to the up-cycling design technique?**

I think it is very important to choose fabrics carefully when sourcing. Think about comfort as the priority as well as quality. This means that you will design garments that people will love wearing.

# CASE STUDY

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## TRAID

*TRAID is a UK based charity that recycles unwanted clothes, thereby diverting discarded clothes from entering landfill in order to reduce clothing's environmental and social impacts. TRAID operates a network of over 1,500 used clothes collection containers around the UK to help British local government authorities, businesses, schools and communities reduce clothing waste and work towards zero clothing waste. Through their collection containers, TRAID diverts around 3,000 tonnes of discarded clothes from landfill or incineration every year and instead uses these clothes via various recycling channels. TRAID also has their own fashion label, called TRAIDremade, which is made from up-cycled unwanted textiles, including vintage and end-of-rolls, and is sold in select TRAID charity shops.*



Image credit: TRAID

**Why is sustainable design important to you/ TRAID? How did you get into it?**  
Sustainability is everything at TRAID.

On an organisation level, TRAID works to reduce the impact of the production, consumption and disposal of clothes by reusing unwanted clothes. This process delivers sustainable education and raises funds for our other projects that improve conditions across the global garment industry.

More specifically, we also focus on sustainable design through our own fashion label, called TRAIDremade. This reuses existing resources using the up-cycling and reconstruction sustainable design techniques to create 'new' pieces exclusively from waste. Our label was dreamt up when TRAID's Chief Executive, Maria Chenoweth-Casey, was sitting on our clothes sorting conveyor belt in 2002 watching discarded clothes pass her by in our sorting process. She saw that up-cycling and customisation techniques could be a way to salvage high-quality but damaged clothes. Soon after, TRAIDremade was born.



Image credit: TRAID

### **What does up-cycling mean to you?**

It's a way to reuse our existing textile resources by transforming them into new garments.

### **How do you apply the up-cycling design technique in your collections?**

Our first TRAIDremade collection featured reconstructed men's suit jackets and bags made from old Levi's and hand printed T-shirts. The collection was an immediate success and sold out at Topman. Today, the label has evolved to incorporate fabric rolls and remnants, as well as damaged clothing, which gives us more creative power over the design process.

### **Which up-cycled design are you most proud of?**

It's always difficult to pick one thing as every collection produces a couple of standout pieces. In our AW13 collection, a quilted jacket was hugely popular with our customers. It was made from both pre-consumer and post-consumer textile waste. It incorporated end-of-roll fabrics, which were donated by one of the most famous luxury brands in the world, and reclaimed blankets and fabric remnants.

I'm also very proud of our animal motif jumpers, which were embroidered by women artisans in Delhi who work in an embellishment co-operative that was set up with TRAID funding. The project has enabled these embroidery workers to break their dependence on exploitative middlemen for poorly-paid piecework by linking them directly with suppliers in order to secure fairly paid work, which typically doubles their incomes.

### **What does TRAID find most challenging and rewarding about up-cycling?**

Both the rewards and the challenges of up-cycling are rooted in the fact that we are working with existing resources. This means we have to work with what we've got, which demands creativity, risk-taking and experimentation.

### **What is your best resource?**

There are many incredible resources out there dedicated to sustainable fashion, from nascent blogs to established authors. The rise of social media has been a wonderful way to join the dots between people who might otherwise have operated separately. For anyone interested in finding out more about sustainable design, Twitter is an excellent starting point to engage with the ever-expanding global community of people involved in sustainable and ethical fashion.

### **What is your top tip to the up-cycling design technique?**

To go beyond technique and be clear about your motivation and philosophy for designing sustainably. Once that's in place, you'll be a sustainable designer for life!

# LEARN MORE

## WATCH THIS...

### **The EcoChic Design Award Up-cycling Tutorial**

**YouTube** [http://youtu.be/U\\_f\\_MNIUC54](http://youtu.be/U_f_MNIUC54)

**Youku** [http://v.youku.com/v\\_show/id\\_XNTQ3MzY1NDQ4.html](http://v.youku.com/v_show/id_XNTQ3MzY1NDQ4.html)

### **The EcoChic Design Award Up-cycling Tutorial with Orsola de Castro**

**YouTube** [http://youtu.be/b7n8AVUE\\_dg](http://youtu.be/b7n8AVUE_dg)

**Youku** [http://v.youku.com/v\\_show/id\\_XMzY4NTE3MjA0.html](http://v.youku.com/v_show/id_XMzY4NTE3MjA0.html)

### **Redressing the Fashion Industry: Orsola de Castro at TEDxLondonBusinessSchool 2013**

**YouTube** <http://youtu.be/1mbqwOK9kNM>

## READ THIS...

### **A Practical Guide to Sustainable Fashion** by Alison Gwilt

### **Commentary and Critique – Design for Recycling**

[www.ecofashiontalk.com/2014/01/commentary-and-critique-design-for-recycling](http://www.ecofashiontalk.com/2014/01/commentary-and-critique-design-for-recycling)

### **Cradle To Cradle: Remaking The Way We Make Things** by Michael Braungart

**Design Is The Problem: The Future Of Design Must Be Sustainable** by Nathan Shedroff

### **Eco-Chic: The Fashion Paradox** by Sandy Black

### **Eco Fashion** by Sass Brown and Geoffrey B. Small

### **Fashion & Sustainability: Design for Change** by Kate Fletcher and Lynda Grose

### **How Can Fashion Designers Make Clothes Less Disposable?**

[www.ecouterre.com/how-can-fashion-designers-make-clothes-less-disposable](http://www.ecouterre.com/how-can-fashion-designers-make-clothes-less-disposable)

### **Reducing Waste by Re-using Textiles**, Rachel Gray, WRAP 2012

[www.wrap.org.uk/sites/files/wrap/RWM 2012 Rachel Gray Reducing waste by re-using textiles.pdf](http://www.wrap.org.uk/sites/files/wrap/RWM%202012%20Rachel%20Gray%20Reducing%20waste%20by%20re-using%20textiles.pdf)

### **Remake It: Clothes: The Essential Guide to Resourceful Fashion: With over 500 tricks,**

**tips and inspirational designs** by Henrietta Thompson

### **Shaping Sustainable Fashion: Changing The Way We Make And Use Clothes** by Alison Gwilt and Timo Rissanen

### **Sustainable Fashion And Textiles: Design Journeys** by Kate Fletcher

**Sustainable Fashion: Past, Present and Future** by Gordon K. Farley, Jennifer Farley, Colleen Hill

### **The Sustainable Fashion Handbook** by Sandy Black

### **Trash to Trend, Using Upcycling in Fashion Design** by Reet Aus

[www.reataus.com/files/Reet\\_Aus\\_doctoral\\_thesis.pdf](http://www.reataus.com/files/Reet_Aus_doctoral_thesis.pdf)

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**Ada Zanditon** [www.adazanditon.com](http://www.adazanditon.com)

**Christopher Raeburn** [www.christopherraeburn.co.uk](http://www.christopherraeburn.co.uk)

**Freitag** [www.freitag.ch](http://www.freitag.ch)

**From Somewhere** [www.fromsomewhere.co.uk](http://www.fromsomewhere.co.uk)

**Goodone** [www.goodone.co.uk](http://www.goodone.co.uk)

**LLB** [www.l-l-b.no](http://www.l-l-b.no)

**Louise de Testa** [www.louisedetesta.com](http://www.louisedetesta.com)

**Lu Flux** [www.luflux.com](http://www.luflux.com)

**Luis Valenzuela** [www.luisvalenzuelausa.com](http://www.luisvalenzuelausa.com)

**Maison Martin Margiela** [www.maisonmartinmargiela.com](http://www.maisonmartinmargiela.com)

**Mimi New York** [www.mimineyork.com](http://www.mimineyork.com)

**People Tree** [www.peopletree.co.uk](http://www.peopletree.co.uk)

**Piece x Piece** [www.pxp-sf.com](http://www.pxp-sf.com)

**Rags2riches** [www.rags2riches.ph](http://www.rags2riches.ph)

**Victim Fashion Street** [www.victimfashionst.com](http://www.victimfashionst.com)

**Wan & Wong Fashion** [www.facebook.com/WanandWongFashion](http://www.facebook.com/WanandWongFashion)

**Worn Again** [www.wornagain.co.uk](http://www.wornagain.co.uk)

## LEARN THE LANGUAGE...

**Closed loop design** is when a product is designed to have another function after its use thereby eliminating all waste. In this way, a used product's output becomes the input for a new product or function.

**Clothing banks** are garment recycling stations put up in a community, often by a charitable organisation, where consumers are able to recycle their used clothing.

**Cradle to cradle** refers to a closed loop design process, which is free of waste. When a product is no longer useful, it becomes material for another product.

**Cut-and-sew waste** is excess textile from the cutting and sewing phase of garment manufacturing. It is often considered waste and is discarded due to its uneven and small formats.

**Damaged textiles** are unfinished textile products that have been damaged, for example colour or print defects

**Down-cycling** is to recycle a material into something of lower quality.

**End-of-rolls** is factory surplus textiles that have been leftover from garment manufacturing

**Life cycle** is the resource extraction, manufacture, distribution, use, disposal and recycling of a product.

**Post-consumer waste** is waste collected after the consumer has disposed of it.

**Pre-consumer waste** is manufacturing waste that has not reach the consumer.

**Recyclable** is a material that can be reused at a similar level of quality.

**Recycled** is when a waste material or product has been reused and turned into a new usable material or product.

**Reduce, reuse, recycle** are the so called 3R's that classify waste management, according to their order of importance. Reduce your consumption and usage, reuse items again and recycle materials.

**Sampling yardage** is factory surplus sample textiles that have been leftover from sample manufacturing

**Secondhand** is a product that is acquired after it has been used by someone else and is not new.

**Secondhand textiles** are any textiles that have been used and discarded by consumers, which are not clothing or fashion accessories

**Supply chain** are the resources and steps involved in moving a product from raw material to consumer.

**Sustainability** is a lasting system, process, that meets the current needs while preserving for the future.

**Sustainable fashion** is clothing that is produced with respect to the environment and social impacts throughout its lifespan.

**Sustainable textile** is a textile that is produced with minimal environmental impact.

**Textile recycling** reusing or reprocessing used clothing, fibrous material and/or textile scraps from the manufacturing process.

**Textile swatches** are leftover textile sample swatches.

**Textile waste** is a material that is deemed unusable for its original purpose by the owner.

**Up-cycling** is the recycling of a material into a product of higher quality.