

The European market potential for sustainable materials

Last updated:

13 September 2022

Global textiles production almost doubled between 2000 and 2015, and the consumption of clothing and footwear is expected to increase by 63% by 2030. About 5.8 million tonnes of textiles are discarded every year in the EU; approximately 11kg per person. Within the EU, textile consumption is now the consumption category with the fourth-highest negative impact on the environment and climate change, as well as the third-highest impact on water and land use over its total life cycle.

Contents of this page

1. [Product description](#)
2. [What makes Europe an interesting market for sustainable textiles?](#)
3. [Which European countries offer most opportunities for sustainable textiles?](#)
4. [Which trends offer opportunities or pose threats for the sustainable materials market?](#)

In 2018, under the auspices of UN Climate Change, fashion stakeholders worked to identify ways in which the broader textile, clothing and fashion industry can move towards a holistic commitment to climate action. They created the [Fashion Industry Charter for Climate Action](#), which includes the vision to achieve net-zero emissions by 2050. The [2020 Circular Economy Action Plan](#) and the [2021 update of the EU Industrial Strategy](#) identify textiles as a key value chain with an urgent need and a strong potential for the transition to sustainable and circular production, consumption and business models. In March 2022, the European Union unveiled its [Strategy for Sustainable and Circular Textiles](#). The Strategy aims to create a sector vision whereby textile products placed on the EU market are long-lived, recyclable, mainly made from recycled fibres, free of hazardous substances, and produced with respect for social rights and the environment. Measures include a mandatory European extended responsibility scheme, eco-design requirements for textile products, actions to tackle microfibre pollution and greenwashing, and a new 'digital product passport'. The consumer interest in sustainable materials is expected to remain an important trend for the European market.

1. Product description

Sustainable materials are materials whose production process has a low impact on the environment. This means that they combine at least a number of the following characteristics: their production requires relatively little water and/or energy and limited use of chemicals, they include waste components and/or are produced with renewable resources, are free from GMOs, don't cause soil erosion, and are biodegradable.

Sustainable materials can range from organic natural materials to sustainable cellulose, protein or wool fibres as well as manufactured or recycled fibres. They should be produced using non-chemical treatments. Factors to consider when choosing sustainable materials include the source and renewability of the fibre, the process of turning raw fibres into textiles, the working conditions of people producing the materials, and the total carbon footprint of the material.

Sustainable materials can be broadly divided into four main types:

1. recycled fibres that are made with waste material;
2. plant-based fibres with low environmental impact;
3. animal-based fibres produced in a sustainable way; and
4. semi-synthetic fibres with low environmental impact.

Table 1: Overview of different types of sustainable materials

RECYCLED FIBRES Made with waste material	PLANT-BASED FIBRES With a low environmental impact	ANIMAL-BASED FIBRES Produced in a sustainable way	SEMI-SYNTHETIC FIBRES With a low environmental impact
Recycled polyester	Organic cotton	Peace silk	Lyocell/Tencell®
Recycled nylon	Linen	Responsible wool (alpaca, sheep, merino, camel, yak, cashmere)	Orange fibre
Recycled cotton	Hemp	Responsible leather	Pineapple fibre
Recycled wool	Ramie	Responsible down	Sustainable viscose (including EcoVero and modal)
Recycled textile	Natural rubber		Cupro

Source: [Sustainyourstyle.org](https://sustainyourstyle.org)

Sustainable recycled fibres

Figure 1: Cotton bale



Source: [Pexels](https://pexels.com)

Sustainable recycled fibres include:

Recycled polyester (rPET) is made by recycling single-use plastics like plastic bottles. It is a great way to divert plastic waste from landfills. The production of recycled polyester requires less resources than the production of new fibres and it generates lower CO2 emissions. rPET is very versatile and can take many different forms. This means that it can be used to make everything from thin, light and stretchy ethical activewear to thick and fluffy fleece. Sustainable fashion brands like [Patagonia](https://patagonia.com), [prAna](https://prana.com), and [Reformation](https://reformation.com) have been using recycled polyester for years. Other companies using recycled polyester in their products include [Adidas](https://adidas.com), [Finisterre](https://finisterre.com), [Ecoalf](https://ecoalf.com), [Seasalt](https://seasalt.com),

Thought, and **Zouma**. While recycled polyester is a sustainable option, it is still non-biodegradable and releases plastic microfibres.

Recycled nylon (Econyl) is a recycled nylon fabric made using a closed-loop system through the recycling of synthetic waste from ocean plastic, abandoned fishing nets, and waste fabric. It has the same benefits as recycled polyester in that it diverts waste streams from landfills and its production uses far less water, energy, fossil fuels and other resources than virgin nylon. However, recycling nylon is still more expensive than producing new nylon. Brands using recycled nylon include **Patagonia**, **Peony**, **Salomé**, and **Outerknown**.

Recycled cotton, also known as regenerated cotton, reclaimed cotton or shoddy, is produced using post-industrial or post-consumer waste and can be defined as converting cotton fabric into cotton fibre for reuse in textile products. Recycled cotton prevents textile waste from ending up in a landfill and requires far less resources than conventional or organic cotton. This makes it a great sustainable option. Since the quality of recycled cotton may be lower than that of new cotton, recycled cotton is usually blended with new cotton. The production of recycled cotton is still very limited. Many well-known brands such as **Patagonia**, **Columbia**, and **The North Face** have launched initiatives in their stores to encourage their customers to return their old clothing for recycling. Companies such as **Sântis Textiles**, which has offices in the UK, the USA, Indonesia, Thailand, Turkey, China, Egypt and Pakistan, provide recycled cotton fibres.

Recycled wool: Wool is one of the most sustainable and naturally durable fibres. Recycled wool, also known as rag wool or shoddy, is also a very sustainable option. Research shows that woollen products have the potential to last 20-30 years and often even longer. Recycled wool is made by shredding existing woollen fabrics and respinning the resulting fibres. Recycling diverts wool waste from landfills and contributes to a reduction in air, water and soil pollution. It saves a considerable amount of water, reduces the amount of land needed for sheep grazing, and reduces the use of chemicals for dyeing. Brands using recycled wool include **Patagonia**, **Asket**, **Organic Basics**, and **Colorful Standard**.

Recycled textile: A lot of research is currently done into how to make textiles from textile waste. This type of textile is not yet widely available because of the difficulty of separating fibre blends as well as other technological challenges. Brands that use recycled textile technology include **Circulose®**, **NuCycl™**, **Liva Reviva**, **Textloop™**, and **Infinna™**. **PVH Europe** and **Inditex** recently signed long-term multi-million euro deals with Infinited Fiber, the producer of Infinna™, under which Infinna will supply them with its recycled textile material. They join companies such as Patagonia, Bestseller, Ganni, and Zalando, which have also secured supplies of Infinna for the coming years.

Recycled fibre certificates include **Global Recycle Standard (GRS)** and **Recycled Content Standard (RCS)**.

Sustainable plant-based fibres

Figure 2: Cotton flowers



Source: **Unsplash**

Sustainable plant-based fibres include:

Organic cotton, one of the most eco-friendly fabrics, is made from cotton grown from non-GMO seeds, without pesticides, insecticides or synthetic fertilisers, and processed without the use of chemicals. Organic cotton uses 62% less energy and 88% less water than conventionally farmed cotton, addressing most of the environmental challenges linked to conventional cotton production. Several organisations have established certifications for organic cotton. These include **Global Organic Textile Standard (GOTS)**, **Better Cotton Standard**, **USDA-Certified Organic**, and **Oeko-Tex**. Brands that use organic cotton include **Organic Basics**, **Thought**, **Beaumont Organic**,

[Two Thirds](#), and [Bibico](#).

Organic and regular linen: Linen is a natural fibre from the flax plant. Flax is the second most productive fibre crop after hemp. The fabric is cooling, moisture-regulating, super light and breathable while remaining robust. Its growth requires very little fertiliser, pesticide, energy and irrigation. Since it is mostly made of cellulose, it is biodegradable. Flax plants have a high rate of carbon absorption and can grow in poor soil that is not used for food production. In some cases, flax can even rehabilitate polluted soil. Brands using linen in their collections include [Two Thirds](#), [H&M](#), [Magic Linen](#), and [Linenfox](#).

Organic hemp is one of the most eco-friendly natural fabrics that exists. Hemp is a high-yielding, fast-growing plant whose growth is healthy for the soil, and it requires far less watering than cotton. It also requires far less energy, pesticides and fertilisers than other crops. It is considered a carbon-negative raw material, meaning that it absorbs CO2 from the atmosphere. It also has many other benefits: it is super light, breathable, naturally sun-protective and antimicrobial. Hemp is harder to grow than other textile crops. It also tends to be slightly more expensive than other sustainable organic materials. Brands using hemp include [Levi's](#), [Jungmaven](#), and [THTC](#).

Ramie and stinging nettle, or European nettle, are plants used to produce a fibre similar to linen or hemp. Ramie is one of the strongest natural fibres. It is flexible, shiny, extremely versatile, highly absorbent, and naturally resistant to bacteria. It is normally harvested two to three times a year, but it can be harvested up to six times a year under good growing conditions. Much like hemp, nettles need far less water and pesticides to grow. Ramie and nettle fabrics are not very common but they are considered sustainable. Suppliers of nettle fibres and yarns include the Swiss company [SwicoFil](#). Brands that use ramie/nettle fabrics or fabric blends include [Balossa](#), [Dressarte Paris](#), [Seventy Venezia](#), [Adolfo Dominguez](#), and [Frame](#).

Natural rubber is made from the milk of the Hevea tree. The harvesting of rubber doesn't harm trees but actually helps the tree to flourish. Natural rubber, therefore, comes from a renewable resource and protects forests from being cut down. Rubber from FSC®-certified forests ensures good environmental management of the forest. The Fair rubber association label ensures better living conditions for natural rubber producers. Natural rubber is also easy to recycle and biodegradable. Brands using natural rubber in their products include [Po-Zu](#), [Waes](#), [Grünbein](#), and [Viking](#).

Sustainable animal-based fibres

Figure 3: Silk moth eggs



Source: [Pexels](#)

Sustainable animal-based fibres include:

Peace silk (Ahimsa silk) is a protein fibre produced by wild or domesticated silkworms. It is a renewable resource that is biodegradable and sustainable. Silk has temperature-regulating and antibacterial properties. Because conventional silk production kills the silkworms, animal rights advocates prefer peace silk. Peace silk uses a humane type of sericulture and its fair production is verified under the World Fair Trade Organization Guarantee System. The main certification for peace silk is [OTEX-Certified Organic Silk](#). Brands using Peace Silk include [Stella McCartney](#), [Mother of Pearl](#), [Urban Medley](#), [Ayten Gasson](#), and [Tiziano Gardini](#).

Alpaca wool comes from the fleece of alpacas, which are mainly bred in the Peruvian Andes. Alpaca wool is considered to be one of the most ethical and eco-friendly wools. Alpacas don't destroy the environment in the way that other livestock does and they are more efficient eaters, needing very little water and food to survive. One animal produces enough wool for four to five sweaters a year. Local Peruvian farmers generally respect these animals and raise them in a humane way. Ethical brands using Alpaca wool include [Peruvian Connection](#),

[Maydi](#), [Samantha Holmes](#), [Purl Alpaca Designs](#), [Carolina K](#), and [AYNI](#).

Sheep wool: As a natural fibre, wool can be considered an alternative to plastic and petroleum-based synthetics like nylon and polyester. It is long-lasting and typically doesn't require a lot of chemicals during processing. Wool fabrics biodegrade naturally. Most animal agriculture has been associated with environmental degradation and land clearing and the production of wool has been associated with a range of animal welfare and ethical concerns. However, there are farms that use best practices to protect the land and treat animals well. Brands using ethical sheep wool include [Fjallraven](#), [prAna](#), [People Tree](#), [Seasalt](#) and [Patagonia](#). Key certifications include [Responsible Wool Standard \(RWS\)](#), [Certified Organic Wool](#), [Certified Animal Welfare Approved](#), [Certified Humane® Label](#), [Soil Association Organic Standards](#), and Climate Beneficial by [Fibershed](#).

Merino wool is a natural fibre gotten from Merino sheep. It's thinner and softer than regular wool, handles water well, dries quickly and insulates even when wet. It has become popular as a comfortable and practical textile for outdoor clothing. Merino sheep are different from other sheep in that they have wrinkly skin, which means that they produce more wool. A lot of the world's merino wool comes from Australia. Key certifications are: [ZQ Merino Standard](#), [Responsible Wool Standard \(RWS\)](#), [Woolmark](#), and Climate Beneficial by [Fibershed](#). Brands using merino wool include [Unbound Merino](#), [Ridge Merino](#), [Icebreaker](#), [Duckworth](#), [Ibex](#), [Smartwool](#), [Darn Tough Vermont](#), [Civic by Taylor Stitch](#), [Allbirds](#), [Woolrich](#), [Pendleton](#), [WoolX](#), and [Woolly](#).

Camel wool, also known as camel hair or camel cashmere, is a fabric made from the hairs of the Bactrian camel. This animal is primarily found in the region between Turkey, China and Siberia. Camels are typically reared by small-scale family farmers. This type of farming causes less environmental damage. Camel wool is one of the most sustainable types of animal fibres. It is naturally shed rather than sheared, totally biodegradable, and does not require dyes or chemicals during processing. Brands using camel wool include [Hessnatur](#), [Happy Camel](#), and [Gentle Herd](#).

Responsible cashmere wool is a fully biodegradable, super soft material sourced from goats in the mountainous regions of Asian countries like Mongolia. The fibres can be as fine as 15 microns in diameter. Sustainable sourcing of cashmere includes hand combing techniques. There is also the option of using recycled cashmere fibres. The main certifications are: [Good Cashmere Standard® \(GCS\)](#), [Sustainable Fibre Alliance \(SFA\) Cashmere Standard](#), and the [Kering Standard on Cashmere](#). Responsible cashmere producers include [Chianti Cashmere](#), whose cashmere-producing goats help to reclaim and improve abandoned or underutilised agricultural land. Brands that use responsible cashmere include [Riley Studio](#), [Patagonia](#), [Stella McCartney](#), [NAADAM](#), [Cuyana](#), [ADAY](#), [Le Kasha](#), and [Reformation](#).

Yak wool is a cashmere alternative. Like cashmere, it is also incredibly soft and warm. It regulates moisture, is breathable, and allergy-friendly. Yak wool is harvested from either the outer coat or the undercoat of free-ranging yaks on the Tibetan Plateau. As Yaks shed profusely year-round, harvesting the fur doesn't involve directly interfering with the animals. Brands like [Lanuius](#), [Norlha](#), [United by Blue](#), and [Reformation](#) use ethical yak wool.

Responsible leather: Leather will never be an animal-friendly product because it is made from the skin of dead animals. The skins that are used to make leather come from animals raised for their meat. In that sense, it uses a by-product from another industry, so it doesn't need additional land and resources. The tanning of conventional leather has a negative impact on the environment but leather can also be eco-friendly. For example, [Ecolife™ by Green Hides](#) creates eco-friendly, chrome-free leather in tanneries that recycle and purify wastewater. Chrome-free tanning is better than traditional tanning, and some brands use all-natural dyes or vegetable dyes. The [Leather Working Group](#) promotes sustainable environmental practices in the leather industry. Brands using sustainable and recycled leather include [ABLE](#), [Altir](#), [Sézane](#), and [Nisolo](#).

Responsible down comes from ducks and geese. Down and feather apparel is in high demand due to its durability, warmth and light weight, but also receives a lot of scrutiny due to animal welfare concerns. Animal farming, specifically that which involves ducks and geese, has been associated with inhumane practices. The

main problem with conventional down is the live-plucking of birds, which is cruel and painful to the animal. Brands are therefore looking for responsible or recycled down certifications. Patagonia, for example, has put out a [very clear statement about their use of down](#) and how they ensure traceability from farm to factory. Key certifications are [Responsible Down Standard \(RDS\)](#) and [Global Traceable Down Standard](#). Brands that have committed to the Responsible Down Standard include [The North Face](#), [Eddie Bauer](#), [Marmot](#), [Mammut](#), [Nau](#), [Outdoor Research](#), [Helly Hansen](#).

Sustainable semi-synthetic fibres

Figure 4: Yarn



Source: [Pexels](#)

Sustainable semi-synthetic fibres include:

Lyocell (also known as TENCEL™) is a semi-synthetic or cellulosic fabric that has become very popular in the sustainable fashion world. It is produced from the pulp of the eucalyptus tree. This tree doesn't require a lot of water, fertilisers or pesticides to grow, and the fabric is much more eco-friendly than modal and viscose. The manufacturing process is also sustainable because it requires less water than other fabrics, and occurs in a "closed-loop system" where up to 99.5% of dissolving agents can be reused. Like rayon and viscose, lyocell is 100% biodegradable. Lenzing AG, an Austrian company, produces most of the world's Lyocell (the generic name of the fibre) and owns the Tencel® brand name. Brands using lyocell include [Two Thirds](#), [Encircled](#), [Paneros](#), [Amour Vert](#), [Thought](#), [Organic Basics](#), [Groceries](#), [Valani](#), [People Tree](#), and [LA Relaxed](#).

Orange Fibre is an innovative fabric made from orange skins, a by-product of the juice industry. The innovative process was patented in 2014 by the Italian company [Orange Fiber S.r.l.](#) The patent applies in all the main citrus juice producing countries in the world. Orange Fiber has also partnered with the Lenzing Group to create lyocell fibres made from orange and wood pulp. Orange fibre is an incredibly soft and high-quality vegan and silk-like material that is mostly used in the luxury fashion sector. It has been used by brands such as [H&M](#), [Farragamo](#), and [E. Marinella](#).

Pineapple fibre, also known as Piñatex, comes from scrap pineapple leaves and is a sustainable and cruelty-free alternative to leather. It is considered sustainable because it's made from the by-products of pineapple harvests, so its production does not use additional resources. The production of Piñatex uses no additional water, pesticides or fertilisers, and avoids the use of heavy metallic salts that are used in the production of chrome-tanned leather. Piñatex is currently used to manufacture bags, shoes, wallets, and watch bands, and is being further developed for use in clothing. Brands using Piñatex include [Hugo Boss](#) (one of the first few brands that worked with the material), [Svala](#), [Nae Vegan](#), [Altiir](#), [Laura Strambi](#), [Votch](#), [Wonder Women of the World](#).

Sustainable viscose: Conventional viscose is usually not very sustainable because its production involves many chemicals that seriously harm the environment when they are discharged into water bodies. There are, however, a few sustainable viscose options, such as [ENKA®](#), [Eastman Naia™](#) and [EcoVero™](#). EcoVero™ is a type of viscose fibre created by Lenzing. It comes from varied and controlled sustainable wood and pulp sources that are [Forest Stewardship Council](#) or [Program for Endorsement of Forest Certification Schemes](#) certified. EcoVero™ requires 50% less water to produce than standard viscose fabrics and emits 50% less CO2. Brands using EcoVero™ include [Two Thirds](#), [ArmedAngels](#), [Lanius](#), and [Baukjen](#).

Cupro fabric (also known as cupra) is a vegan alternative to silk. It is an artificial cellulose fibre that is made from either recycled cotton garments or cotton linter, a by-product of cotton farming. The natural cotton fibres are dissolved in a cuprammonium solution, a solution of chemicals that turns the cotton into a semi-synthetic fabric. This is done through a closed-loop process that recycles nearly all the water and chemicals until these resources are completely exhausted. The chemicals used are free of toxic or dangerous compounds that are

harmful to human health and the environment. Cupro is biodegradable, making it a good and eco-friendly alternative to viscose. [Niluu](#) uses Cupro to make 100% cruelty-free silky kimonos, pillows and sleeping wear. Other brands using Cupro include [Loewe](#), [Anemos Swimwear](#), [Nightswim](#), and [Ayla Swim](#).

Other sustainable but largely experimental materials include [S.Cafe](#), [Brewed Protein](#), [Apple Eco Leather](#), [Woocoa](#) and [Omilk](#).

Fibres that have a strong negative environmental impact and cannot be considered sustainable include cotton, non-responsible wool, non-responsible down, leather, non-responsible cashmere, polyester, rayon, viscose and modal, synthetic fibres, bamboo and vegan leather.

Tips:

Investigate which of your materials are sustainable and what can be done to improve the sustainability of the materials you use in production. Create an action plan aimed at shifting to a more sustainable production.

There are several assessment tools you can use to evaluate the materials you work with. These include the [Higg Materials Sustainability Index](#), the [MADE-BY Environmental Benchmark for Fibres](#), and the [Preferred Fiber & Materials \(PFM\) Benchmark](#).

Research different sustainability standards such as [Global Recycle Standard \(GRS\)](#), [Recycled Content Standard \(RCS\)](#), [Global Organic Textile Standard \(GOTS\)](#), [Better Cotton Standard](#), [Oeko-Tex](#).

To stay up to date on the latest technological developments, you can visit dedicated forums for eco-friendly, innovative, or sustainable products at fabric fairs such as [Premiere Vision](#).

2. What makes Europe an interesting market for sustainable textiles?

There are no specific trade data available for sustainable textiles. [The Business Research Company](#) estimates that the global ethical fashion market was worth \$6.31 billion in 2021 and was expected to grow to \$7.57 billion in 2022 at an annual growth rate of 9.1%. The ethical fashion market is expected to continue to grow at a compound average growth rate of 8% to reach \$10.28 billion in 2026.

Europe is one of the most interesting markets for sustainable apparel due to its existing sustainability awareness and initiatives. We are seeing awareness and initiatives continuing to increase at many levels: consumers, retailers, brands, governments, and non-governmental organisations. There are regulatory initiatives at both the national and European level to promote sustainability, such as the [EC Strategy for Sustainable and Circular Textiles](#), [Germany's Partnership for Sustainable Textiles](#), and the [Dutch Agreement on Sustainable Garments and Textiles](#). Pressure from governments is leading to an increase in corporate sustainability initiatives.

The number of sustainable brands is growing and leading labels and retailers are expanding their portfolios with clothing made with sustainable materials. For example, [Inditex's JoinLife](#), [Mango's Committed](#) and [H&M's Conscious](#) collections aim to offer their customers ethically produced clothing with more sustainable fabrics. An increasing number of brands is completely sustainable. They use sustainable materials or sustainable business models, which include memberships, renting, recycling, and upcycling.

- [Asket](#) is one such sustainable brand, offering a permanent collection of seasonless designs. It focuses on creating a single permanent collection of meaningful essentials. Asket sources the finest natural materials and exclusively works with skilled, responsible mills and manufacturers. It has replaced standardised sizing with its own extended size system. It bypasses wholesale distribution and doesn't offer discounts or sales. Asket provides full transparency on the origin, impact and cost of its clothes. It is committed to prolonging

the lifecycle of garments through providing extensive care instructions, repairing damaged garments and buying back used garments to give them a second life.

- Irish retailer Primark is an example of an established fast fashion brand, which is taking steps to become more sustainable. In 2022, it **announced** a major expansion to its sustainable cotton sourcing programme. Sustainable cotton plays an integral part in its long-term vision to make more sustainable clothing affordable for everyone. Primark has made a commitment that by 2027 all the cotton in their clothing will be organic, recycled, or sourced from its programme, making it traceable from the grower's village to the shop. The programme initially started in India and has since been expanded to Pakistan and Bangladesh.

There is also increased consumer interest in supporting sustainable and ethical fashion. A recent **analysis** of monthly online searches centred on sustainable and ethical fashion keywords found that Europe had the highest number of monthly searches for these keywords. Consumer interest in sustainability deepened during the COVID-19 pandemic, with European consumers wanting fashion players to act responsibly and consider the social and environmental impacts of their business. According to a **McKinsey survey**, conducted in 2020 among British and German consumers, 67% considered the use of sustainable materials an important factor in purchasing decisions and 65% plan to buy more durable fashion items. However, despite these sentiments, consumers are not always willing to pay much more for sustainable apparel. They expect brands to improve sustainability without strong adverse effects on price, quality or design.

3. Which European countries offer most opportunities for sustainable textiles?

Europe's top six apparel markets include Germany, France, Spain, Italy, the Netherlands and Poland. The markets in France, Spain and Italy have been declining in value over the past five years. The Netherlands has remained largely unchanged and Poland and Germany have grown. While Germany is the largest market and Poland the smallest within the top six, Poland is the fastest grower at an average annual growth rate of 13.3%. It is still a relatively young sustainable apparel market, while the other countries in the top six have a much more established sustainable apparel production and retail scene. Overall, in the European market, 38% of consumers consider the social impact of a garment before purchasing it and 37% consider the environmental impact.

Germany

Germany is the largest market for apparel in the EU with an apparel import value of €30.2 billion and an average annual growth rate of 0.9% in 2020. According to **Statista**, Germans spent about €173 million on fair-trade textiles in 2021. There are more than 150 shops in Germany solely dedicated to eco, fair and sustainable fashion. Berlin, Hamburg, and Munich are fair fashion hotspots. 332 German brands are certified with the **Global Organic Textile Standard (GOTS)** label that documents sustainable production chains.

Germans are among the most eco-conscious consumers in the world. Green fashion in Germany is about topics such as manufacturing conditions, materials, slow fashion and recycling. German consumers attach importance to fair pay and decent working conditions during production, as well as ecological materials, such as those from organic cultivation. Slow fashion and recycling also play a central role. German consumers buy fair fashion both online and offline. They rely on and value sustainability certifications to help them when making a purchasing decision.

Key insights from a 2022 GFK **study** about German consumer behaviour in sustainable fashion were:

- 69% of German consumers say that environmental and social compatibility are very or fairly important to them when purchasing clothing or footwear.
- 33% of German consumers feel that the responsibility for adhering to standards in this area for the issue of sustainability in the fashion industry lies with the companies.
- 44% say they would resell clothing in good condition. An above-average demand for second-hand clothing comes from the Millennials age group (aged 25 to 39).
- 65% trust eco-labels such as GOTS and 50% specifically look for such eco-labels before making a purchase.

- 81% of German consumers say that they would not buy clothing with fur features.

Ethical German brands include [Armedangels](#), [LANIUS](#), [Vatter](#), [Infantium Victoria](#), [Honest Basics](#), [Anekdot](#), [Jyoti](#), [Jan 'N June](#), [Dawn Denim](#), [NIKIN](#), [bleed](#), [LangerChen](#), [ThokkThokk](#), [Sense Organics](#), and [Vaude](#).

France

France is the second-largest market for apparel in the EU with an apparel import value of €17.1 billion and an average yearly decline of 1.7% in 2020. While many French luxury brands have been slow to join the ethical fashion movement, an increasing number of smaller fashion labels are leading the way. In 2019, the French government announced a decision to make Paris the world's sustainable fashion capital by 2024. It launched a 'Paris Good Fashion' initiative, which is expected to bring designers and experts together to help make the fashion industry greener. In 2020, France also passed legislation whereby clothing companies in the country must adhere to around 100 sustainability requirements, including a ban on the destruction of unsold clothes.

A [2021 study](#) by Appinio reveals that sustainable fashion is gradually gaining ground in France without becoming the norm, because price is the main obstacle to more responsible consumption. According to the study:

- Only 22% of French consumers say they often buy sustainable clothing items and 49% consumers say that they sometimes buy sustainable clothes.
- 58% of French consumers who never or rarely buy sustainable fashion don't do so because of the higher price of those items, while 24% say they do not know where they can find sustainable fashion, 21% feel there is no transparency, which prevents them from knowing which brands are truly sustainable, and 18% feel there are not enough sustainable products and brands to choose from.
- French people who buy sustainable fashion readily turn to so-called eco-friendly brands (45%), clothes made from sustainable materials (43%) and vintage or second-hand items (36%,) but they are less enthusiastic about fair trade (20%) and local production (19%).

Ethical French brands include [Hopaa!](#), [Veja](#), [1083](#), [Bombón de algodón](#), [caur](#), [Les Récupérables](#), [Marcia](#), [La queue du chat](#), [Good Guys](#), and [émoi](#).

Spain

Spain is the third-largest market for apparel in the EU, with an apparel import value of €14.0 billion and an average yearly decline of 0.3% in 2020. It is the world leader in fast fashion thanks to its flagship apparel groups [Inditex](#) (which owns Zara, Bershka, Massimo Dutti, Oysho, Pull&Bear, Stradivarius, Uterqüe and Lefties) and [Mango](#).

According to a 2021 [study](#), Spanish consumers are increasingly oriented toward sustainable fashion as a way to preserve the environment and the health and well-being of society. Spanish consumers are also willing to pay more for slow fashion products. According to [Statista](#):

- 90% of Spanish consumers are ready to make changes to their day-to-day activities to protect the environment.
- 88% of Spanish consumers pay attention to the environmental impact of their day-to-day activities and they don't buy products and services they don't really need.
- 86% increasingly pay attention to the origin of the products and services they buy.
- 84% consider it important to buy sustainable products.

However, according to another recent [study](#), the lack of trust in fashion companies and their sustainability claims is the main reason preventing Spanish consumers from buying sustainable products or doing so more often. The second main reason is the higher cost of sustainable clothing.

The Spanish fashion industry has joined the trend, as evident from the growing number of companies in this sector as well as "green fashion" conferences, associations, fairs and catwalks. Ethical Spanish brands include [SKFK](#), [allSisters](#), [The Nude Label](#), [Cus](#), [Beyond Skin](#), [Ecology](#), [Lefrik](#), [Swim Against](#), [amt](#), [Ecoalf](#), [TwoThirds](#), and

Italy

Italy is the fourth-largest market for apparel in the EU, with an apparel import value of €11.5 billion and an average yearly decline of 1.7% in 2020. Although concerns over the environmental impact and working conditions are on the rise, sustainability is as yet not a big factor for Italian consumers when they buy clothes. A 2022 [Statista](#) survey found that the main factors considered by Italian consumers when buying clothes were price, fit, and quality. Other findings include the following:

- 82% of Italian consumers would rent clothes.
- 66% of Italian consumers feel that manufacturers should be obliged by law to consider ethical aspects.
- 30% of consumers know the term 'slow fashion'.
- 33% had reduced or wanted to reduce their clothing purchases due to ethical reasons.
- The main impediment to buying ethical clothes cited by consumers is the difficulty in discerning which brands are eco-friendly and high prices of eco-friendly apparel.
- 20% give priority to the longevity of the product and 14% are concerned about its ecological impact.

Overall, Italian consumers show a positive attitude towards sustainability. According to the "[2020 Report on Conscious Fashion](#)", internet searches for vegan leather and eco-friendly fabrics such as organic cotton and recycled plastic derivatives are continuously increasing in Italy, while searches for leather and fur are declining.

The number of sustainable Italian fashion brands is growing. Ethical Italian brands include [Womsh](#), [Opera Campi](#), [CasaGIN](#), [Kampos](#), [RE-BELLO](#), [Souldaze](#), [Zerrobarracento](#), [Rifò](#), [Gaia Segattini Knotwear](#), [ID.EIGHT](#), [Carmina Campus](#), [Peninsula Swimwear](#), and [haikure](#).

The Netherlands

The Netherlands is the fifth-largest market for apparel in the EU, with an apparel import value of €11.4 billion and an average annual growth rate of 0.1% in 2020. The Dutch government has set a clear objective of making the textile industry in the Netherlands more circular and sustainable. In 2015, a broad coalition of partners, including [apparel manufacturers and retailers](#), industry associations, trade unions, NGOs and the Dutch government, signed the [Dutch Agreement on Sustainable Garments and Textiles](#). The signatories have committed themselves to fighting discrimination, child labour and forced labour, and to supporting living wages, adherence to health and safety standards, and the right of independent trade unions to negotiate on behalf of workers. In addition, they have pledged to reduce their negative impact on the environment, to prevent animal abuse, to reduce the amount of water, energy and chemicals that they use, and to produce less chemical waste and wastewater.

According to Statista, in 2020, [79% of consumers](#) in the Netherlands stated they consider sustainability in their purchasing decisions. The share of Dutch consumers willing to pay extra for sustainable fashion increased from [28% in 2014 to 43% in 2020](#). At the same time, in 2020, [43% of consumers](#) said they distrusted manufacturers' sustainability claims.

Ethical Dutch brands include [MUD Jeans](#), [Jackalo](#), [Kuyichi](#), [Kings of Indigo](#), [Unrecorded](#), [Saint Basics](#), [A-dam](#), [O My Bag](#), [Goat Organic Apparel](#), [RVDK](#), and [Noumenon](#). More brands can be found on [thegreenlabels](#), which is an Amsterdam-based e-commerce platform that curates green labels.

Poland

Poland is the sixth-largest apparel market in the EU, with an apparel import value of €8.7 billion and an average annual growth rate of 13.3% in 2020. In Poland, growing environmental consciousness among consumers is not translating as quickly into more sustainable fashion choices as in the other main European markets. According to a [2021 BCG and Vogue survey](#):

- 75% of Polish consumers say sustainability is an important factor influencing their purchasing decisions,

while 20-30% do not understand what sustainability means.

- 40% of Polish consumers say they buy ethical apparel, and 38% say they are willing to buy more second-hand clothing, while 25% remain indifferent or sceptical about buying sustainable clothing.
- About two-thirds of Polish consumers are willing to pay more for sustainable apparel, but a 20% increase in price reduces the initial demand for sustainable apparel by up to 62%. Up to 26% of Polish consumers would not consider buying sustainable apparel even if it was priced the same as regular apparel because of worries over quality issues.
- Of those who do not shop sustainably, 69% do not consider eco-credentials an important factor in their purchasing decisions, while 42% are put off by doubts about the ethical and environmental impact of brands. 21% feel that sustainable apparel offers too little variety compared to conventional product lines, and 20% consider it too expensive.

Ethical Polish brands include [NAGO](#), [Elementy](#), [PULPA](#), [GAU](#), [LYKO](#), [Seaside Tones](#), [KOKOworld](#), [Imprm Studio](#), [Aleksandra K](#), [Roe&Joe](#), [Osnowa](#) and [Drivemebikini](#).

United Kingdom: Brexit created great uncertainty

The United Kingdom, which used to be the second-largest European apparel market after Germany, left the European Union at the end of December 2020. As a result, new trade agreements were for all product categories, including apparel, were needed to maintain trade relations with the member states of the European Union and other countries worldwide. Although a no-deal Brexit was avoided and a free trade agreement was concluded between the EU and the UK, Brexit has created various problems for imports and exports. The free trade agreement exempts the trade in goods between the UK and the EU from tariffs and quotas, but it has put in place rules of origin, increased paperwork, including accounting for VAT because the UK is now no longer part of the EU's VAT regime, and border checks. This makes it very difficult for some UK brands to operate. A large share of the UK's fashion brands, particularly in the sustainable fashion market, [manufacture and source materials in Europe and 80% of UK apparel exports are currently sent to the EU](#). For these brands, Brexit has both financial and environmental consequences. These include higher shipping costs, logistical issues and delays in deliveries, lower orders due to higher shipping costs and waiting times, and higher rates of return.

Impact of COVID-19 pandemic on the European sustainable apparel market

In the early months of 2020, the COVID-19 pandemic effectively halted the fashion industry. This included the closing of shops, cancelled fashion shows, furloughs and layoffs of workers, and unsold stocks piling up. This resulted in an industry-wide financial crisis, with global fashion brands renegeing on payments and many factories unable to pay their garment workers. The drop in demand caused by the pandemic resulted in significant revenue loss and unemployment for workers in Asia, which threatened some of the sustainability initiatives previously underway.

At the same time, the pandemic created opportunities in terms of rethinking and redesigning the fashion supply chain along its five key stages: design, production, retail, consumption and end-of-life. It raised awareness of the need to engage in new design practices, as expressed, for example, by the [Rewiring Fashion](#) manifesto. Design processes are being reconsidered to incorporate fewer trends, seasons, fashion weeks and collections. In addition, the aim is for the reimagined fashion industry to support new buying and consumption behaviours and to reduce the industry's dependence on discount sales. The disruption to the global supply chains caused by the pandemic may also present an opportunity to upgrade skills and technology, and to create a more balanced mix of local and global production networks. Some retailers have already reported increased consumer interest around sustainable brands, as consumers used some of the time spent in lockdown to explore sustainability.

Further information about the impact of the pandemic be found in the CBI [market information about the impact of the Coronavirus](#).

Tips:

Visit European sustainable fashion trade shows to understand the offering and customers' requirements and demands. The world's largest sustainable fashion trade show, [Neonyt](#), typically takes place in Germany.

Other shows worth visiting are Mint, a show area for sustainable brands at the [Modefabriek](#) and the Dutch Sustainable Fashion Week in the Netherlands, [Green Fashion Week](#) in the Mediterranean, and [Innatex](#) in Frankfurt.

Visit the websites of the main sustainable brands in each of the countries to understand which materials they are working with and what sustainability certificates they expect.

Explore how the impact of the pandemic may trigger a change for the good in terms of upgrading skills and technologies and reconsidering the frequency of collections and trends. Talk to your customers to understand how it has changed their approach to production and planning.

4. Which trends offer opportunities or pose threats for the sustainable materials market?

Growth in eco-friendly materials and technologies

The growth in eco-friendly materials and technologies offers suppliers who adapt to them advantages in the market. Vietnamese companies like Vitajeon, Faslink and Thanh Cong Textile Garment-Investment-Trading Joint Stock Company (TCM) observed that there was high demand for eco-friendly fashion products in markets like the European Union, Japan and the United States. These companies started implementing eco-friendly strategies with a focus on fibres.

[Vitajeon](#) has invested in making green fibres to produce more eco-friendly and biodegradable products. It has applied sustainable and ecological finishing technology for its denim products. The company uses Ozone-G2, a technology that dramatically reduces the amount of water and chemicals used. [Faslink](#) is another leading Vietnamese company that focuses on sustainable fashion. Since 2008, the company has researched and created various kinds of fibres, including those made from lotus stems and leaves, coffee grounds, peppermint, seashells, and coconut fibre. In 2021, Faslink supplied around eight million bales of eco-friendly fabrics to the market. In early 2022, Faslink collaborated with young Vietnamese designers to release new collections highlighting its green fabrics. [TCM](#), based in Ho Chi Minh City, now uses recycled polyester, viscose and recycled cotton made from recycled bottles, maize, sugarcane, and old clothes. The company recognised the sustainable fashion trend and noticed that partners and customers had shifted to seeking “green businesses” as partners. So in 2015, they decided to build a research and business development department and invited experts to help them create new eco-friendly products to meet the high demand.

Vegan leather

Companies are increasingly developing and using vegan leather in their fashion production process. Vegan leather is a material that mimics leather but is created from artificial or plant products instead of animal skins. It is most often made from plastic polymers, either polyurethane (PU) or polyvinyl chloride (PVC). These are most commonly used due to their wrinkled texture, which helps give the appearance of real leather. Vegan leather can also be made from innovative and sustainable materials, such as pineapple leaves, cork, apple peels, orange peels, other fruit waste, and recycled plastic. One example of vegan leather is [Desserto](#), a leather made from cactus. According to the [Environmental Profit & Loss report](#) developed in 2018 by Kering, the environmental impact of vegan leather production can be up to a third lower than real leather.

Buybacks of denim

Popular denim brands are deploying blue-jeans-buyback policies where bringing in an old pair of jeans results in a voucher or discount for a new pair. Companies like [Levi's](#), [Ariat](#) and [Pacsun](#) have introduced such programmes. Companies like [Madewell](#), a pioneer in jeans buyback, are also establishing partnerships with other companies to collect and recycle jeans, which otherwise would end up in landfills or incinerators. Recycling denim is important not only because denim microfibres are one of the major pollutants of the oceans, but also because far too much clothing still ends up in landfills.

Regenerative agriculture

Regenerative agriculture is a conservation and rehabilitation approach to food and farming systems. It focuses on topsoil regeneration, increasing biodiversity, improving the water cycle, enhancing ecosystem services, supporting biosequestration, increasing resilience to climate change, and strengthening the health and vitality of farm soil. In 2021, [Timberland](#) and its parent company, VF Corporation, pushed regenerative agriculture into the spotlight by announcing the first [regenerative rubber supply system](#) in the apparel industry. The new initiative is part of Timberland's goal of sourcing 100% of its natural materials from regenerative agriculture by 2030. Other brands like [Patagonia](#) and [North Face](#) are working directly with farmers and farmer cooperatives to fund the cost of compliance and to promote uniform standards in support of regenerative farming techniques. In 2021, the luxury goods group Kering partnered with Conservation International to create a \$6 million Regenerative Fund for Nature to convert 1 million hectares of livestock and crop supply lands into regenerative farms. Fashion brands which make claims about regenerative farming have to develop rigorous monitoring and quality assurance systems along the supply chain. To assist with supply chain management, several fashion brands are forming partnerships with one another and with environmental organisations.

Tips:

Build brand positioning for environmental and social responsibility. Make it a part of your company and/or brand story and demonstrate the positive impact of your sustainable processes on the environment and on your local community. Create a business case that explains why buyers should buy your sustainable textiles or products.

Develop a strategy to make your fibres greener, by looking into new production processes or improving existing ones.

Explore whether you could use vegan leather in your products and connect with retailers and manufacturers committed to the use of vegan leather.

Seek partnerships with companies that work on recycling denim or consider becoming a supplier of recycled denim.

Explore ways of implementing regenerative agriculture in the production of your textiles or buy textiles from suppliers who can prove that they apply regenerative agriculture practices.

This study was carried out on behalf of CBI by [M-Brain GmbH](#).

Please review our [market information disclaimer](#).