



# Atradius

# Clean Energy Transition: Textiles

## Laundering the fashion industry's carbon footprint

**As consumers looking for ways to reduce our individual environmental impacts, we may cut back on the number of flights we take. We might install solar PVs on our rooftops, improve insulation in our homes, or invest in an electric car.**

Few of us would look at the clothes in our closets as a major source of environmental concern. Yet the fashion industry is responsible for 10% of the world's carbon emissions (more than aviation and shipping combined). It is the second biggest consumer of water in the world and is responsible for 20% of global wastewater. And when we launder our clothes, we release 500,000 tons of microplastics into the ocean every year. This is the equivalent of 50 billion plastic bottles.

Cleaning up the industry's environmental footprint is a massive undertaking and something that carries risks as well as rewards. Our sector expert in Turkey pointed out that in order to develop a circular economy, brands would have to "convince their customers to buy less clothes and buy more recycled and sustainable clothes."

Despite the challenge, this is a journey that many governments have already begun. The EU Strategy for Sustainable and Circular Textiles is looking at the lifecycle of products and is coordinating actions to change the way they are produced and consumed. In the USA, California's Garment Worker Protection Act aims to protect workers in the state's fashion industry and nationwide legislation has been proposed. In China, the government recently set a goal to increase the recycling of textiles waste to 30% by 2030.

### Recycling textiles

Recycling textiles can be complicated, depending on whether a fabric is a blend of materials. Some options include:

#### Fabric recycling

Takes pieces of complete fabric (from finished items or factory offcuts) and re-sews them to create a new garment, or parts of a new garment.

#### Fibre recycling

Garments are shredded into fibres for reuse. The downsides are that the 'new' fibres can be of poor quality and if unregulated can contain substances of concern.

#### Polymer recycling

Textiles are melted or dissolved back to polymer level and can be brought back to virgin equivalent quality.

Source: Ellen Macarthur Foundation

## What do Atradius underwriters see as the primary issues in the sector?

Atradius underwriters located in the world's leading textile producing regions shared their thoughts on the challenges and opportunities for the industry. This includes our sector experts in: China, France, Germany, Hong Kong, India, Italy, Japan, South Korea, Taiwan, Turkey and the USA. They explained the textile sector can minimise waste and reduce environmental impact in the region by adopting circular practices such as recycling, reusing and repurposing. They could also select eco-friendly fabrics and colour pigments and optimise technology to enhance supply chains and reduce water consumption. Our underwriters in Italy, Japan and China, in particular, acknowledged a local appetite among producers to exploit the opportunities presented by a transition to sustainability in the fashion industry.



## Challenges: What are the most urgent challenges for the sector in the next three years?

### 1. High cost of innovation

Companies with tight capital or thin profit margins may not be able to put more spending in R&D for a transition to clean energy, recycled fabrics and advanced textiles. In addition, as our underwriters in Asia-Pacific pointed out, the global economy is still in downturn. Transitioning to a circular economy is actually another burden for middle and small size companies.

### 2. Creating circular processes

Improving sustainability in the textiles industry will include reducing the amount of clothes sent to landfill. Our sector experts in Turkey and Italy explained the industry needs to tackle this by designing products in a way that would make re-use and recycling easier.

### 3. Supply chains

The textiles industry operates with long and often complex supply chains. Ensuring ESG along the length of the chain is a challenge. This includes reducing the use of fossil fuels (in the creation of man-made fibres), recycling cotton (reducing need for the water hungry plant) and improving working conditions of garment makers.

## Opportunities: What are greatest opportunities for the sector in the next three years?

### 1. Efficiencies

From Smart supply chains to enhanced manufacturing processes, greater industrial efficiency can help reduce waste (and save money). Our experts in Italy said: "The digital transition is closely linked with the sustainable transition, in a synergy where the former is the means to reaching the second, which is the purpose."

### 2. New customers / markets

Businesses that develop green practices have the opportunity to build their customer base and enter new markets. Our experts in every market explained how businesses could benefit from a better brand image for customer engagement and loyalty, and potentially boost their market share.

### 3. Government support

As the world tries to bring global warming to net zero, many governments are providing funds and tax incentives for green development and fines for companies that fail to comply with legislation. As noted by our experts in Taiwan: "Businesses could enjoy government subsidies and tax benefit, which could support them with long term development."

### Where next?

Looking ahead there are many opportunities for the fashion industry to leverage digital technology to help reduce its impact on the environment. Areas such as 3D printing, virtual reality and artificial intelligence could be employed to reduce waste and improve the customer experience. The industry could place a greater focus on the circular economy, using technology to improve recycling opportunities, which in turn could help them to build new markets for recycled goods and enhance their sustainability credentials. Ultimately, by employing technology to achieve a circular approach to the fashion economy, the industry can avoid having to employ messages such as "buy less". Instead, the textiles industry can create new opportunities and new markets while also reducing its environmental impact.



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