

## **Textiles for sportswear and functional clothing**

Although in the past it was the aesthetic aspect, rather than the intrinsic characteristics of the materials, that conditioned the consumption of the market in the clothing sector, currently new and parallel needs are emerging, such as functionality, sustainability, health and quality of life. These are the new paradigms on which future scenarios are based, and on which the new needs of consumers are being shaped.

Thanks to this evolution, and to the development of scientific and technological knowledge, textiles are repositioning themselves on the market, identifying in the new and emerging trends of society, the objectives and horizons for the development of new products with a higher technological content.

### **The sport sector**

In this scenario, the sports sector is now a business of great importance. In fact, the practice of sport is becoming more and more widespread, also involving the textile sector, used in a large number of applications and in particular in both competitive and gym clothing.

According to a Eurobarometer survey, there are tens of millions of Europeans who take up at least one sport once a week and it is necessary to underline how sporting activity is also extending to new age groups, so much so that it is estimated that 22% of those over seventy continue to practice some form of physical activity. In Italy, the most interesting buying groups are young women who buy trendy and fashionable sportswear or who practice fitness, and men between 40 and 60 years old who are approaching sport for the first time.

At European level, according to Eurostat, in 2019 the total European production of sportswear sold (sea and mountain) amounted to € 764 million, of which about € 364 million was destined for export outside the EU. In this context, Italian exports of Technical Textiles for sportswear show a high level of dynamism: according to ExportPlanning Analytics, considering their level in euros in 2000 at 100, in 2018 they reached the level of 211, with an increase higher than the outerwear sector whose index was recorded at a value of 148.

Furthermore, the available data (Eurostat 2019), shows that in the context of non-European exports (which grew by 9.4% per year between 2014 and 2019), Italian production is also at the top of Europe in this sector, surpassed only by Germany.

## Functional textiles

In the design of a garment aimed at a sporty lifestyle, among the most important needs to be met are those relating to performance comfort. The concept to be taken into consideration is functionality, i.e. the ability of the textile material to exert a certain property in a given condition.

And textiles, through correct design, can make a contribution to sports performance through the study of movement, the knowledge of metabolism and energy balance under conditions of stress. In general, for clothing items, there are three functions that must be performed, and which are often identified in three different potential layers: breathability, insulation, protection.

To this end, thanks to technological innovation, multifunctional textiles have also been developed, i.e. capable of performing multiple functions, thus reducing the number of layers themselves. These multifunctional textiles are products whose performance is able to respond to a number of extremely diversified needs, which however integrate perfectly with those traditional characteristics required of a garment: protection from heat and cold, water and humidity, sun and wind must not be to the detriment of lightness, freedom of movement and an elastic fit. In fact, the "physiological" comfort and the control of perspiration must be considered important factors such as durability, abrasion resistance, ease of maintenance and quick drying of the garment.

## Importance of the supply chain and technology transfer between sportswear and fashion

However, the conferral of a certain functionality, as an added value of the textile product, cannot be limited to a single stage of textile processing; It is often necessary to intervene along the production process chain: from the development of raw materials with particular intrinsic characteristics, to the creation of hybrid materials, up to the surface modification of the textile products themselves, without forgetting the opportunities offered by the development of innovative production processes and technologies.

In many cases, the functionality obtained from textiles made for competitive use can also be transferred to garments that can be used in less extreme situations. The overlap between advanced application sectors and fashion therefore represents the "bridge" that unites different lifestyles.

In this way, the trends that come from the world of sport extend, like a fashion phenomenon, to the clothing sector, conditioning the way of dressing that "migrates"

from the practice of sports activities to activewear, to "streetwear", to the world of work or even to more formal situations.

Today, sportswear represents the best link between functionality and fashion as sportswear not only performs a protective function but also a communication function so that colors, shape, and appearance become elements of communication. In this context, therefore, the overlap between sport and fashion, as well as between functionality and trends, becomes the link that unites sport, lifestyles and brands.

## **INNOVATION AREA**

In this context, TexClubTec, the Technical and Innovative Textiles section of Sistema Moda Italia, presents in the Innovation Area a vision that intends to be overall, but at the same time diversified, of the numerous uses of innovative, functional and technical textiles for the clothing sector, characterized by the ability to offer specific performance and functionality or to be made with innovative and sustainable processes.

Thanks to the presence of companies representing the entire production chain, it will be possible to have a diversified vision both on high-performance textile products with innovative features, and on new technologies that can be used for textile materials.

In addition, in the Exhibition Forum, thanks to the presentation of clothing and other textile materials, it will be possible to range from the potential of the use of Graphene as a thermoregulating and antibacterial agent, both in sportswear and in underwear yarns, to jackets with heat-taped sewing from items (footwear, bags, clothing) made using polyurethane yarns to the shock-absorber jacket for American football or the innovative pedalable knee and elbow pads, from breathable and thermoregulating multilayer fabrics to the padding of mountain clothing obtained from recycled polyester ropes. It will also be possible to interact with technologies capable of showing on screen the rendering of garments made in 3D or with embroidery machines preparing and digitizing the embroidery live.

**You can find the exhibition Forum organized by SMI-TexClubTec in the Innovation Area at Milano Unica, 30-31 January, 1 February 2024, Hall 8.**