

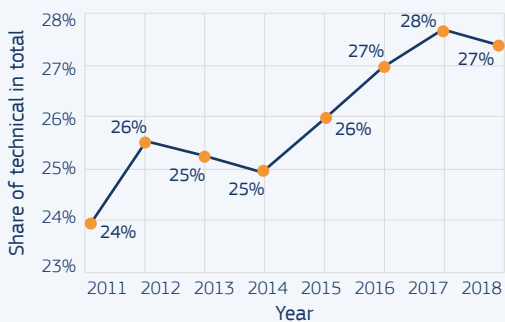
Transforming the textile industry with digital technologies

Sectoral Watch: Technological trends in the textile industry

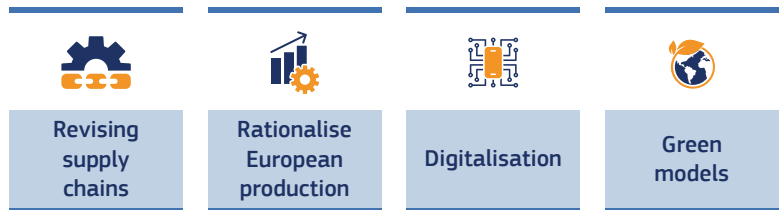
The role of the textile industry

The textile industry is a major contributor to the European economy, with a turnover of €162 bn and employing 1.9m people in the EU27 in 2018. The technical textiles industry represents around 30% of total turnover and is accounting for a growing share. The global technical textiles market is predicted to grow with 5.89% by 2022 comparing to 2017, reaching €195.9 bn.

Figure: Share of technical textiles in total production



The COVID-19 pandemic has had a huge impact on the textile and apparel industry, causing disruption within the supply chain, decline in demand, liquidity problems and overstocking. This has created windows of opportunity for:



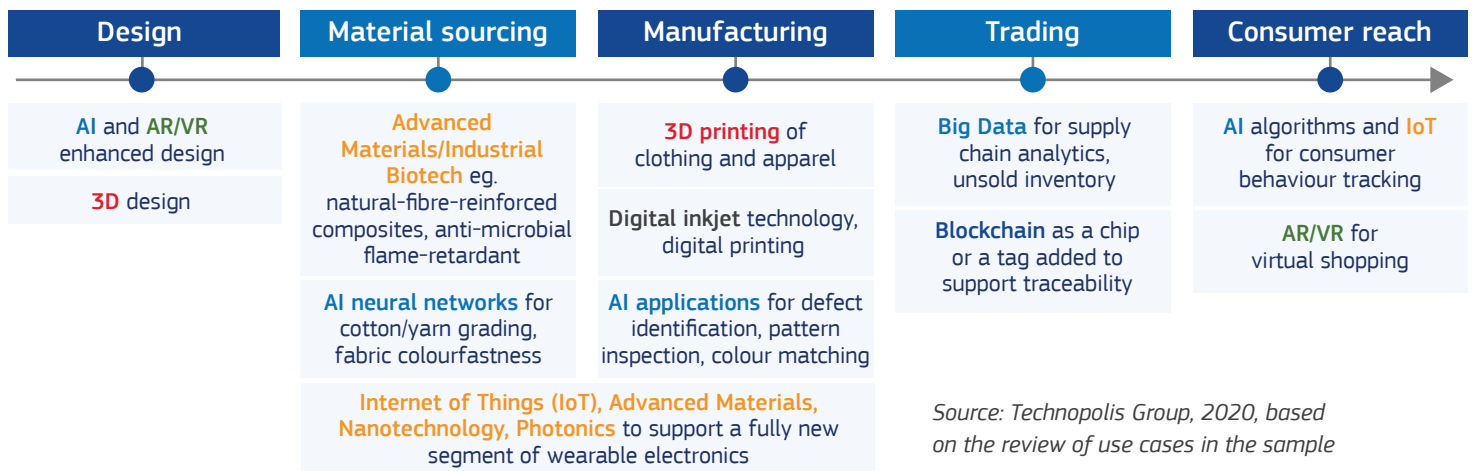
However, sustainability and transparency are increasingly important in the modern textile industry reflecting concerns of both customers and companies. This is driving new research and innovation in the fields of:

- Sustainable and eco-friendly products/materials/business practices
- Resource-efficient processes and less undesired outputs
- More compliance with stricter environmental legislation
- Sustainable image of the company

The survival and renewal of the textile industry is dependent on digital, environmental and recycling technologies

Advanced technologies are critical in addressing the challenges of the COVID-19 pandemic era within the textile industry. Artificial Intelligence (AI) technology offers a potential to revolutionise the inventory of analytics and to better organise the supply chain. 3D design collaboration and Augmented & Virtual Reality (AR/VR) applications will provide a new avenue for companies to facilitate their operation and to engage with customers in a world of restricted free movement.

Figure: Use of advanced technologies throughout the textile industry value chain



Textile companies are adopting technology in multiple ways:

Using Advanced Materials, such as anti-bacterial or antiviral functioning textiles

Focusing on Nanotechnology to enhance textile attributes in fibres, yarns and fabrics

Integrating the Internet of Things to automate processes or produce higher output

For more information, read the full Sectoral Watch report on Technological trends in the textile industry here:

<https://ati.ec.europa.eu/reports/sectoral-watch/technological-trends-textiles-industry>

Europe's textile industry has an increasing venture capital investment since 2010 with the highest number of funding rounds, indicating a strong start-up activity in Europe

Figure: VC investment in textiles, 2000-2019

Investment hotspots are in Italy, Spain, France, Germany and Sweden:

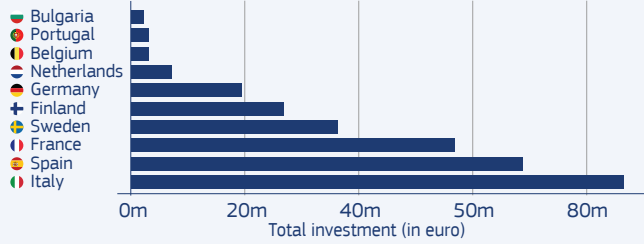
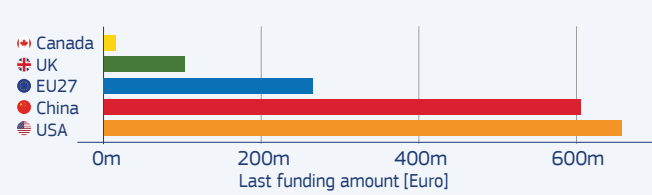


Figure: Last funding amount (2000-2019) in international comparison

The EU27 scored the highest last funding, taking an overall third position:



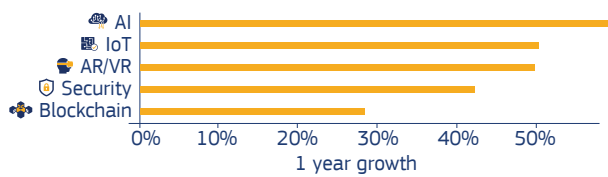
Source: Technopolis Group based on Crunchbase and Dealroom data

Around 21% of investment-backed startups innovate in the area of materials. 14% of startups are focusing their activity on 'greening the textile industry' following the importance of sustainability as frequent topic base.

Along to facing the new and even more digital era, the European textile industry will need to make decisions on continuing to invest in reskilling and upskilling its personnel

Based on registered professionals on LinkedIn there is a high demand for specialists with core skills. Advanced Manufacturing related skills represent the highest share in the EU27, second are skills in the area of Big Data. Big Data skills are used in trend and customer behaviour in particular. Another technological skill set that is highly relevant within the European textile industry is related to Cloud and Advanced Materials. See the graph below for the top five skills in the textiles industry.

Figure: One-year growth of top five skills



Source: Technopolis Group based on LinkedIn analysis

Opportunities

AI-enhanced personalisation and virtual experiences needs bolder investments by the European textile industry since these technologies are necessary to deal with business optimisation.



Sustainability and ethical production practices remain very important. Shifting towards more sustainable solutions will lead to a more resilient sector better equipped to overcome challenges in the future.



Challenges

The textile industry is forced to revise its sourcing strategies and operating models due to changes in customers' habits. Increasing trade between the European Union and neighbouring countries contributes to economic recovery.



Upskilling the workforce will be a pillar for developing new competitive advantages. Supporting vocational education programmes will be needed to facilitate relevant skills.



About the Advanced Technologies for Industry (ATI) project

The ATI project – funded by the European Commission – supports the **implementation** of Europe's new growth strategy with a systematic monitoring of **technological trends** and reliable, **up-to-date data** on advanced technologies.



The **Sectoral Watch** analyses trends in the generation and uptake of advanced technologies, related entrepreneurial activities and skills needs in a number of selected sectors. It interprets data from a list of data sources compiled to monitor advanced technologies and their applications in industry across Europe and key competitor economies. It allows policy makers, industries and intermediaries to contextualise the collected data on advanced technologies specific for the industries in focus.

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