

81ST PLENARY MEETING

# MUMBAI, INDIA

2-5 December 2023

Cotton Value Chain:  
"Local Innovations for Global Prosperity"



## MINUTES

### SEVENTH OPEN SESSION

**Industry 4.0 for Textiles: Smart Manufacturing in Textiles**  
**MONDAY, 4 DECEMBER, 16:30 TO 18:30**

Chair: Mr. Rajeev Saxena, Joint Secretary, Ministry of Textiles, Government of India  
Moderator: Parkhi Vats, Commodity Trade Analyst, ICAC

The meeting began at 16:30.

In this engaging session featuring six speakers, experts from various facets of the textile and cotton industries shared insights on critical topics, ranging from market challenges and recycling to sustainable textiles and digital innovation. These presentations collectively illuminate the evolving landscape of these industries and the innovative strategies and technologies driving progress.

Mr Robert Antoshak from Gherzi Textile Corporation delivered an insightful presentation titled 'Hanging Tough in a Tough Market', addressing the challenges faced by the cotton and apparel industries. These challenges encompassed supply and demand dynamics, inventory management, pricing issues, and the competition between cotton and synthetic fibres. He highlighted the adverse effects of the pandemic-induced decline in the apparel market, the shift toward synthetics in fast fashion, and consumer price inflation on the industry. Mr Antoshak emphasised the importance of developing marketing strategies backed by quality data to promote cotton over synthetic fibres.

Dr Siddhartha Rajagopal, representing TEXPROCIL, discussed the growing role of cotton in technical textiles, an emerging sub-segment. He highlighted the potential for cotton in functional, institutional, and innovative applications within the Indian technical textile industry. With significant investments and developments in sectors like automotive and medical textiles, India is poised to become a major player in the global market. Dr Rajagopal encouraged the exploration of new product categories such as bio-medical devices, leveraging India's abundant cotton resources to position itself as a significant player in the technical textile sector.

Ms Dipanwita Ray from Fashion for Good addressed the challenges and impact of recycling cotton in the fashion industry. She presented an approach that included brand partnerships and an overview of the technology landscape. Ms. Ray emphasised the need for innovations in textile recycling, considering the existing infrastructure challenges. She also discussed the roadmap to an efficient recycling system, highlighting projects focused on circularity and the scaling of recycling technologies. Additionally, Ms Ray presented a toolkit for organising textile waste and stressed the importance of mechanical and chemical recycling processes, traceability, innovation, and upscaling.

Mr Rahul Bajekar, representing Global Standard, shed light on sustainable textiles and their role in building a resilient value chain. He highlighted the significant environmental impact of the textile industry, ranking second only to the oil industry. Mr Bajekar discussed initiatives like the European Green Deal and the circular economy action plan, emphasising the need to reduce the industry's environmental footprint. He introduced the Standards Map, a comprehensive database of sustainability standards applicable to various sectors, including textiles. Mr Bajekar stressed the importance of standards and labels in promoting sustainability and resilience within the textile value chain.

Mr S Rajasekharan from Laxmi Mills, India, delved into the concept of Smart Manufacturing and Industrial Revolution 4 in textiles, focusing on digitisation. While discussing the transition to Industrial Revolution 5.0, which emphasises personalization, he highlighted the critical role of artificial intelligence in data and bale management systems. Mr Rajasekharan highlighted the integration of smart machines that automate quality and productivity using data and sensors.

Mr Prasanta Deka of Rieter India Private Limited discussed emerging trends in the use of intelligent systems in machine procurement. He introduced the concept of the digital spinning suite, which optimises machine settings for efficiency and evaluates the impact of sliver thickness on the spinning process through a quality dashboard.

The session ended at 18:30.

### **Summary Paragraph**

The challenges facing cotton and textiles include post-Covid supply and demand dynamics, inventory management, pricing issues, and the competition between cotton and synthetic fibres. However, new product categories such as bio-medical devices could help cotton position itself as a significant player in the technical textile sector. There is a roadmap to an efficient recycling system, highlighted by projects focussing on circularity and the scaling of recycling technologies. Textiles has a significant impact on the environment, indicating the importance of standards and labels in promoting sustainability and resilience within the textile value chain. Digitisation and artificial intelligence hold potential for helping textiles become more sustainable.