

# The Importance of Innovation and Sustainability in Italian Textile Machinery Manufacturing



Alex Zucchi (President Of ACIMIT)

### 1. Present Status of Italian Textile Machinery?

In 2022, the value of Italian machinery production exceeded 2.7 billion euros, up about 13% on the previous year. Exports account for more than 86% of this value (+15% compared to 2021 year). Despite the negative factors like the inflationary pressures and political crises caused by the pandemic and Russia-Ukraine war so even in 2022 the upward trend of our industry goes on. Also thanks to ITMA, we expect a further growth in demand for Italian machinery in 2023.

### 2. ACIMIT strategy in case of sustainability and innovation?

Increased awareness of ecological issues has involved the Italian textile machinery industry. The reduced use of resources, for a lower environmental impact, is just one of the topics through which the Italian

manufacturers declines its commitment on the side of sustainability. A commitment that ACIMIT has made its own by developing the Sustainable Technologies project. At the heart of the initiative is the Green Label, the document that certifies the energy and environmental performance of the machinery and summarizes it by giving a value to the Carbon Footprint of the machine itself. Regarding the innovation textile companies need technologies that are highly interconnected with each other and with their ERP and MES systems, and machinery that can make textile production increasingly competitive. So ACIMIT developed the digital certification, named DIGITAL READY, designed to simplify the production process, making use of a standard language and unique data reading system that allows different types of machinery to dialogue with production systems.

### 3. How do you see trends in case of technology?

Technological trends focus on sustainability and digitization increasingly. Indeed, textile machinery make possible a growth in the competitiveness of its users, reducing production costs and increasing production efficiency. During ITMA Milan visitors will be able to verify that the displayed innovations will go in this direction.

### 4. Strategy for growth of International Market Share of Italian Textile Machinery?

The best strategy to increase market share is to keep being innovative and offer the best and tailor-made solution to each customer. Always aware of their customers' strategies, Italian textile machinery manufacturers have well understood the importance of the transition to a more sustainable fashion industry and how technologies are expected to make a concrete connection between eco-efficiency and eco-effectiveness. For example, some Italian textile machinery manufacturers are committed in the production of technologies for the recycling and regeneration of textile waste. Other Italian companies are making an effort to find solutions in the field of augmented reality and artificial intelligence in order to support textile customers in optimising production using real-time data and in enabling both predictive and preventive maintenance of the machinery in use at the customer's facility.

### **5. Why International Textile Industry should Choose Italian Textile Machinery for Manufacturing?**

Creativity, reliability and flexibility characterize Italian textile machinery supply. I believe that Italian companies can reply quickly and with right solutions to the ongoing challenges that the global textile industry faces every day.

### **6. How do you see Made In Italy Concept?**

The concept is a combination of tradition and innovation. Especially in the textile sector, those who buy Made in Italy machinery know that it is the result of a historical legacy of know-how and passion and strong innovative creativity.

### **7. Italian Textile Machinery Participation and Expectation from ITMA 2023?**

Italy is the first represented Country at ITMA, with about 410 exhibitors covering around 36,000 sq. mts. Fully 30% of the total exhibition space at ITMA will be taken up by Italian machinery manufacturers. After the pandemic years, ITMA will mark a break from the last three years. There is a willingness of the whole industry to come together again, and Italian exhibitors expect a high number of visitors and a positive business climate.

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## **The strategy for innovation is the basis for DiloGroup's success**

**Mr. Johann Philipp Dilo, CEO of DiloGroup**

### **1. Present Status of DiloGroup**

The Dilo machine building was founded in 1902 in Eberbach, Germany. The group with DiloSpinnbau, a carding specialist, DiloTemafa, specialized in opening and blending equipment, and Dilo crosslappers and needlelooms successfully formed since 1996 and 2005, is a specialist for the production of complete needling lines. Needling is one of the most prominent and important consolidation technologies for nonwoven material in almost any sector of application. With that basis Dilo has been successful longterm and sees a bright future for its range of machinery which are included in a comprehensive and modern leading programme. In cooperation with partner companies also the sectors through-airbonding, thermobonding, chemical bonding and water entanglement can be offered in the complete line business.

### **2. How is DiloGroup adding digitalization to its product portfolio?**

It is worthwhile noting that needling lines have since decades a very high degree of automation and extremely high productivity due to the speed needed products can be manufactured. The lines run with very little manpower and tie in all components through variable drives which are synchronized and controlled. PLCs control all functions in the programmed way and get from the operator's control station and the graphical screen monitors through the operators the set values individually adapted or from a recipe library.

Digitalization today however means more than this basis of digital controls for drives and line integration which is sometimes described as smart industry or Industry 4.0. Software additions and sensors assist the operators in order to reduce the degree of complexity and provide means to run the lines in a higher degree of automation for example during a startup mode where assistance particularly is needed ("Dilo smart start"). Dilo operator's assistance modules, for example, offer insight, also remote, for all line parameters set and real. And also give insight to surveillance processes of individual machine components for preventive and predictive maintenance actions by monitoring temperatures, vibration, pressure and parameters of that sort in order to prepare action and increase uptime.

Other modules save energy by helping to adjust drives for pneumatically conveying fibre flocks in the network of ducts to various machine components as well as in the pneumatic dedusting and filtering systems from DiloTemafa's Airsystems engineering.

The status of machine components in the fibre preparation section is monitored by the "smart guide light" system to assist the operator in his surveillance job about the status of individual components.

This process of developing operator's assistance system is evolutionary and not revolutionary. All