Reshaping Asian Manufacturing: Taiwan Ignites a New Era of Smart and Sustainable Textile Innovation at ITMA ASIA + CITME 2025



The spotlight at **ITMA ASIA + CITME 2025** shone brightly on **Taiwan's textile machinery industry**, as it redefined the future of Asian manufacturing with a compelling vision of **smart automation, digital transformation, and sustainability**.
At the landmark event, *"Reshaping Asian Manufacturing: Taiwan's Smart & Sustainable Textile Solutions,"* Taiwan showcased how **technology and responsibility** can together shape a cleaner, smarter, and more resilient global textile future.

Organized by the **Taiwan External Trade Development Council (TAITRA)** in collaboration with the **Taiwan Association of Machinery Industry (TAMI)**, the presentation brought together global buyers, industry leaders, and media representatives. The message was clear and confident — **innovation from Taiwan is enabling the textile world to evolve toward precision, sustainability, and efficiency like never before.**

Driving the Smart and Green Revolution

For decades, Taiwan has been the quiet force behind Asia's industrial modernization. At this event, that strength came alive — powered by **AI-driven automation, energy-efficient technologies, and eco-conscious design philosophies**.
Six of Taiwan's most advanced machinery manufacturers unveiled breakthrough solutions that

seamlessly merge **intelligence with environmental stewardship**, proving that productivity and sustainability are not opposites, but perfect partners in progress.

Each innovation presented marked a leap toward a **circular, low-carbon textile supply chain**, reaffirming Taiwan's global leadership in engineering excellence and its dedication to empowering industries worldwide.

ACME — Setting the Gold Standard for Sustainable Dyeing

ACME Machinery Industry Co., Ltd. captivated the audience with the **AM-ICD Intelligent Conveyor Drive Dyeing Machine**, the world's first system to achieve **a liquor ratio as low as 1:1–1.5**.
This innovation reduces water, steam, and chemical consumption by over **65%**, transforming dyeing into a **low-energy, low-emission process**. Its constant-speed and low-tension fabric handling ensure flawless, even color results — ideal for knits, warp knits, and nonwovens. With AM-ICD, ACME isn't just building machinery — it's redefining what sustainable manufacturing means in the textile world.

Copower Technology — Digital Intelligence from Lab to Production

Copower Technology Co., Ltd. unveiled **CASMAD**, an automated "command center" that revolutionizes dye formulation through robotics, traceability, and smart scheduling. Running 24/7, it handles everything from **powder dosing to solution preparation** with precision and consistency. By bridging **R&D and production**, CASMAD enables textile labs and factories to scale seamlessly while maintaining quality and safety — a true step forward in **total process automation**.

KUANS Micro-Auto — Data-Driven Dyeing for the Future

KUANS Micro-Auto Co., Ltd. introduced its **Smart Dyeing Analyzer**, a remarkable AI-based system that replaces guesswork with real-time intelligence.
It monitors **dye absorption, pH, and fiber behavior** across multiple light wavelengths — an innovation particularly crucial for recycled and blended materials.
This award-winning solution empowers dye houses to **reduce chemical use, cut waste, and accelerate development**, reflecting Taiwan's mastery in applying **AI for sustainable precision**.

Asia Kingdom — Protecting the Beauty of Every Fabric

Asia Kingdom Machinery Industry Co., Ltd. presented its **Digital Protect Technology**, a breakthrough system that uses **AI-controlled servo mechanisms** to safeguard delicate textiles such as **spandex, swimwear, and performance fabrics**.

By automatically adjusting fabric tension and pressure, it prevents deformation, gloss variation, and reprocessing — ensuring durability, stability, and premium quality.
This "digital guardian" underscores how **Taiwan's blend of craftsmanship and digital expertise** adds measurable value to textile excellence.

Logic Art — Powering the Fully Digital Dye House

A pioneer in automation, **Logic Art Automation Co., Ltd.** introduced its **Dye House Smart Total Solution** — the world's only **end-to-end automation platform** integrating **auto-dosing, chemical control, energy management, and predictive maintenance**.
Used in over **50 countries**, including **70% of Adidas' upstream supply partners**, Logic Art's technology is redefining factory management for the **Industry 4.0 era**, ensuring consistency, safety, and sustainability across continents.

Pailung — Weaving Intelligence into the Fabric of the Future

Pailung Machinery Mill Co., Ltd., a global name in knitting innovation, unveiled its **next-generation electronic jacquard circular knitting machine** and **Smart Knitting Solution** platform.
Featuring ultra-fine gauge precision, real-time defect detection, and **setup time reduced from hours to just 30 minutes**, this system transforms traditional knitting into a **self-optimizing, intelligent process**.
By combining AI, automation, and creativity, Pailung is empowering manufacturers to deliver **high-performance fabrics with speed, beauty, and sustainability**.

Shaping the Future of Textile Excellence

Together, these six companies embody Taiwan's shared vision — **to lead Asia's textile industry toward a smarter, cleaner, and more connected future.**
From intelligent knitting and AI-driven dyeing to total plant automation, their innovations are proof that **technology and sustainability can thrive hand in hand.**

Through this TAITRA and TAMI-led initiative at ITMA ASIA + CITME 2025, Taiwan once again positions itself as **Asia's innovation catalyst** — transforming every challenge into an opportunity, every idea into action, and every thread into a story of resilience and renewal. 🌏✨