ITMF NEWS LETTER

International Textile Manufacturers Federation
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No. 115 – December 2025

and a Happy New Year 2026

Contents

After another challenging year draws to a close, we reflect on everything we are grateful for and all the challenges that await us.

Thank you for your great support in 2025!

On this occasion, we wish you above all a healthy, but also happy and prosperous year 2026 and are looking forward to a mutually fruitful cooperation!

Juan Parés
(on behalf of the Board)

Christian Schindler
(on behalf of the Secretariat)

ITMF NEWS

ITMF's newest members

ITMF has welcome three new associate members in the last few months. This illustrates how important our unique platform is for companies and organisations in different regions and segments of the global textile value chain.

Tessellation Group is a Hong Kong-based conglomerate operating across textiles, apparel, and sustainable technology, with a mission of "Defining the Status Quo for Tomorrow." The group runs vertically integrated manufacturing operations in Vietnam producing over 20 million shirts annually, owns premium shirting brands PYE and DETERMINANT, and operates a portfolio of sustainability-focused businesses including Vertex Greentech (innovative materials), Compass Greentech (eco-packaging), and Exponent Envirotech (waterless dyeing technology).

> read more

aweXome Ray is a South Korean CleanTech startup founded in 2018 with a mission to create cleaner and safer environments through innovative X-ray technology. The company is the first in the world to commercially produce carbon nanotube (CNT) fiber, which it uses as an emitter in its proprietary cold-cathode EUV and X-ray tubes. Its flagship product, Airxome, is a filterless air purification and sterilization system. The company was selected as a "Green Unicorn" candidate by South Korea's Ministry of Environment in 2020.

> read more

Silana is a Vienna-based deep-tech startup developing the world's first fully autonomous sewing system, aiming to transform fashion production by automating the last manual step in garment manufacturing. Using robotics, AI, and machine vision, the company enables nearshoring at scale in high-wage countries like the US and Europe at costs competitive with offshore production, claiming up to 90% automation, 82% cost reduction, and 68% CO2 savings. Silana's technology addresses critical industry challenges including a severe skilled labor shortage, massive overproduction waste (30% of garments never sold), and fashion's significant environmental footprint (8% of global emissions).

> read more

ITMF & ITA webinars on AI in the textile value chain – More to come in 2026

Seven webinars have been proposed to our members on the topic **ITMF & ITA Webinar Series "*AI in the Textile Value Chain*"** so far. The last five webinars concentrated on applications of AI along the entire textile value chain. Due to the increasing number of such applications, ITMF and ITA have decided to add three webinars in the first quarter of 2026. The preliminary dates for these three webinars are **January 27, 2026** | **February 24, 2026** | **March 31, 2026** (12:00-13:15 hrs. CET). We will re-confirm the dates and inform our members about the speakers and topics closer to the first date in January. The recordings and presentations of the previous seven webinars are available on the ITMF Members' Area. ITMF-members: login, go to www.itmf.org/virtual-forum and then click at "Webinar Series".

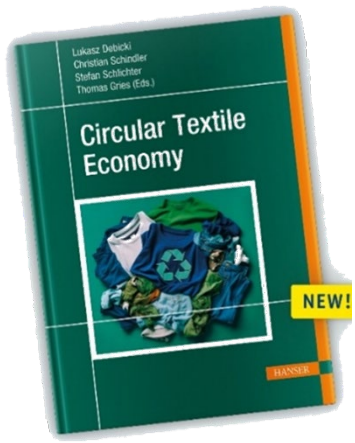
ITMF bids farewell to longtime assistant Roselyne Sanne after 11 years of service

With the end of 2025, and after 11 years of dedicated service, Ms. Roselyne Sanne, one of the two Assistants to the Director General in the ITMF Secretariat, will be leaving the Federation. Throughout this period, Ms. Sanne has been a trusted and reliable colleague, contributing with great commitment, professionalism, and integrity to the work of the ITMF Secretariat. Her work was consistently characterised by a high level of responsibility and mutual trust, forming the basis for a productive and positive collaboration.

Over the years, she became an important part of the ITMF team, not only through her expertise but also through her personality and dedication. Together with her colleague, Ms. Esther Göbel, she was the welcoming and charming face for conference delegates at the ITMF Annual Conferences. They were instrumental in ensuring that each event ran as smoothly as possible.

Her contribution has played a key role in making the ITMF Secretariat an effective and productive organisation. On behalf of the ITMF President, Mr. Juan Pares, I would like to thank Ms. Sanne sincerely for her valuable and trusting contribution over the past 11 years and wish her all the very best for the future.

The book "Circular Textile Economy" now available



The publication "**Circular Textile Economy**" – the result of the successful ITMF & ITA webinar series – is now out and available as a book.

The uniqueness of this publication is the diversity of contributors which ranges from academia, research institutes, policy makers, textile associations, textile and recycling industry experts and business leaders.

From the Preface: *„Circular Textile Economy" aspires not only to inform, but to inspire a collective journey toward a more sustainable, circular future for the textile industry, driven by the collaborative efforts of esteemed editors and a network of global opinion makers and experts*."

Contents **1.** General Overview on the Topic. Textile Circular Economy | **2.** Political Background | **3.** From Used Textiles to New Products: Innovations for the Circular Economy | **4.** Recycling Strategies and Concepts | **5.** Strategies for Transforming to a Circular Economy |**6.** Circularity of Technical Textiles and Composites

> read more

ICCTM-Progress Report 2024

The main objective of **ITMF's International Committee of Cotton Testing Methods (ICCTM)** is to critically examine and discuss existing and new cotton testing methods and instrumentation and to provide guidelines and recommendations. The full committee of the ICCTM meets every other year to discuss the evolution and progress made. The presentations and discussions are published in the so called "ICCTM Progress Report". The last ICCTM Full Committee meeting took place last year on the sidelines of the International Cotton Conference Bremen 2024. The "ICCTM Progress Report 2024" is released and now available on the ITMF-website as a free download (see link below).

The current ICCTM Progress Report 2024 serves as a basis for the next meeting of the full committee which will be held again in Bremen, Germany in conjunction with the Intl. Cotton Conference Bremen 2026. The dates of the ICCTM Meeting are March 23/24, 2026, just before the start of the Intl. Cotton Conference Bremen 2026 (March 25-27, 2026).

In preparation of the next meeting of the ICCTM Full Committee in March 2026, the Chairpersons – Mr. Axel Drieling (Fibre Institute Bremen, Germany) and Ms. Mona Qaud (Uster Technologies, Switzerland) – will reach out to the members of the Executive Committee as well as the Full Committee in January 2026.

Click here to access the "**Progress Report 2024**"

PARTNER NEWS

U.I.T. celebrates 125th Anniversary

Joelle da Fonseca-Ruellan (U.I.T. and Christian Schindler (ITMF)

On December 3rd, 2025, the U.I.T. (Union des Industries Textiles – the French Textile Industry Union) marked its 125th anniversary during a ceremony held at the Sénat in Paris. Olivier Ducatillion, President of UIT opened the evening with a keynote address emphasizing the strategic role of an innovative and responsible French textile industry. Guillaume de Seynes (CEO of Hermès International), Luc Chatel (President of the French Automotive Platform), and Olivier Marcotte (Director of the French Armed Forces Commissariat) participated in a roundtable discussion on current issues (public procurement, European industrial policy, ultra-fast fashion, etc.) that illustrate the importance of defending and maintaining a sovereign and competitive production model.

> read more

The 6th Sustainability Talks Istanbul showcased textile circularity in action

Istanbul, December 2025 — Over 1,000 fashion and textile leaders gathered at Sustainability Talks Istanbul on December 9 at the Hilton Istanbul Bosphorus. Organized by Kipaş Textiles (ITMF member) and Orbit Consulting with İTHİB's strategic support, the Sustainability Talks Istanbul featured presentations from global brands including Mavi, ON, Lacoste, Kering, ArmedAngels, and IKEA. EURATEX Director General Dirk Vantyghem joined the CEO session, while Global Fashion Agenda's Christina Iskov and Sourcing Journal's Jasmin Malik Chua strengthened the international dialogue. Five panels addressed key themes: CEO perspectives on sustainable fashion, supply chain traceability, textile-to-textile recycling, decarbonization pathways, and strategic transformation.

> read more about the Sustainability Talks

The event was followed by an exclusive field trip to Türkiye's pioneering recycling facilities on December 10th and 11th. **MELTEM KİMYA (Adana):** Tour of molecular recycling operations using glycolysis technology to convert polyester waste into high-quality resin. **KİPAŞ fibR-e (Kahramanmaraş):** Visits to both thermomechanical and mechanical recycling facilities, demonstrating the complete textile-to-textile fibR-e manufacturing process, with optional tours of spinning and fabric production.

> read more on pages 9-10 in this Newsletter

38th International Cotton Conference Bremen to Focus on Recycled Fibre Quality Assessment

The 38th International Cotton Conference Bremen will take place from **25-27 March 2026** at Bremen's parliament building, with a key focus on the quality measurement of recycled fibres and their impact on yarn production.

As the textile industry pursues circularity, accurately assessing the performance of mechanically recycled fibres compared to virgin materials has become a critical challenge. The conference will feature four expert presentations addressing this topic:

Stefan Fliescher from Textechno will discuss advances in testing technology for mechanically recycled fibres, noting that traditional measurement methods used for virgin cotton are insufficient for recycled materials due to their damaged, heterogeneous structure. Adele Abdoos from Italy's Mesdan will present research on laboratory-scale fibre recovery simulation, while Christine Wörner from Uster Technologies will examine quality differences between recycled and virgin cotton yarn. Pierre Lanfer from RWTH Aachen University will share findings on fibre degradation across multiple recycling cycles.

The conference, organised by the Bremen Cotton Exchange and the Fibre Institute Bremen (FIBRE), covers the full cotton value chain from agriculture and quality assurance to processing and circular economy. Participation is available both in-person and online.

> read more

UPCOMING EVENTS

2026

Heimtextil 2026
January 13-16, 2026
Frankfurt, Germany

Milano Unica
January 20-22, 2026
Milano, Italy

Texworld Apparel Sourcing Paris
February 2-4, 2026
Paris, France

Première Vision Paris
February 3-5, 2026
Paris, France

VIATT
February 26-28, 2026
Ho Chi Minh City, Vietnam

International Cotton Conference Bremen
March 25-27, 2026
Bremen, Germany

Indo Intertex 2026
April 15-18, 2026
Jakarta, Indonesia

Textiles Recycling Expo USA
April 29-30, 2026
Charlotte, North Carolina, USA

Proposte
May 5-7, 2026
Cernobbio (Como), Italy

Textiles Recycling Expo
June 24-25, 2026
Brussels, Belgium

TITAS 2026
October 6-8, 2026
Taipei, Chinese Taipei

ITMF & IAF Conference 2026
October 14-15, 2026
Fortaleza, Brazil

Venice Sustainability Forum
November 5-6, 2026
Venice, Italy

US Sourcing Summit 2026
November 16-18, 2026
Phoenix, Arizona, USA

ITMA ASIA + CITME 2026
November 20 -24, 2026
Shanghai, China

India ITME 2026
December 4-9, 2026
Greater Noida, Uttar Pradesh, India

ITMF ARTICLES

ITMF Start-Up Awards 2025 – Industrial innovation reaching manufacturing reality

by Christian Schindler, director general, ITMF and Olivier Zieschank, director, ITMF

[1]

The ITMF Start-Up Awards were established to identify innovations with clear relevance for textile manufacturing, beyond early-stage concepts or niche applications. Evaluation focuses on technological maturity, scalability, and the ability to integrate into existing industrial value chains.

The five award winners presented at the ITMF–IAF Conference in Yogyakarta last October reflect a noticeable shift in start-up innovation: away from isolated technical breakthroughs and toward **solutions designed for industrial adoption under real operating constraints**.

Shared industry challenges

Across all presentations, three structural pressures were consistently addressed:

- ongoing pressure on margins from long lead times, overproduction and markdowns,
- increasing regulatory and transparency requirements, and
- growing supply-chain vulnerability driven by labour shortages, geopolitical risk and logistics disruptions.

What distinguished the 2025 award winners was the **practical pathways proposed to address these challenges at scale**.

Automation beyond sewing

Silana focused on a long-standing limitation in garment automation: handling flexible textiles. Rather than replicating human sewing motions, the company has developed alternative fabric-handling methods to enable high levels of automation.

The relevance for manufacturers lies in the broader implication: enabling **local, demand-driven production** independent of labour availability. This positions automation as a tool to stabilise supply chains and reduce overproduction, rather than productivity upgrade.

Decarbonisation at the chemical input level

ZymoChem addressed emissions at the upstream end of the textile value chain. Its bio-based production of nylon 6,6 precursors delivers materials that are chemically identical to fossil-based inputs, allowing integration into existing polymer and fibre production. This approach reduces technical adoption risk and shifts the challenge to scaling and cost parity. The emphasis on fermentation efficiency highlights an important trend: decarbonisation strategies must align with established industrial economics to achieve broad uptake.

Circularity designed for industrial compatibility

Ambercycle presented a textile-to-textile recycling solution producing regenerated polyester compatible with existing fibre and yarn manufacturing equipment. The technology is designed to handle mixed textile waste streams while maintaining material quality comparable to virgin polyester. The significance lies in the move toward **repeatable, industrial-scale circular supply**, supported by long-term brand commitments rather than limited pilot projects.

Advanced materials in textile form

Awesome Ray demonstrated progress in converting carbon nanotubes from laboratory materials into continuous fibres and fabrics. Applications include electromagnetic shielding, heating elements and lightweight conductive cables.

For textile manufacturers, the key development is the transition from advanced material concepts to **processable yarn and fabric formats**, allowing integration without fundamental changes to downstream processes

[1] This Photo by Unknown Author is licensed under CC BY-NC-ND

Digitisation moving upstream in textile development

ByBorre addressed digitisation at the level of textile creation itself. Its platform combines digital design tools with rapid, small-batch production, reducing development cycles and minimum order constraints.

The built-in transparency of material and supply-chain data anticipates regulatory requirements and illustrates how digitisation can simultaneously support **efficiency, traceability and compliance**.

Implications for the industry

The 2025 ITMF Start-Up Award winners illustrate a more pragmatic phase of innovation. Solutions are increasingly designed to work within existing industrial frameworks — machines, materials and supply chains — while improving resilience, reducing complexity and enabling faster response to market demand. For ITMF members, this signals that the most impactful innovations are those that **strengthen manufacturing adaptability without requiring structural reinvention of the industry.**

ITMF Innovation & Sustainability Awards 2025 – From sustainability claims to industrial execution

by Christian Schindler, director general, ITMF and Olivier Zieschank, director, ITMF

The ITMF Innovation & Sustainability Awards recognise projects that combine measurable sustainability impact with technological maturity and industrial scalability. The 2025 award winners – Smartex, LDZ New Orchard (Aoshen) Spandex, and Archroma – reflect clear **solutions already operating in industrial environments.**

Across the three awards, a common thread emerged: sustainability gains are most effective when embedded into existing production systems and when they also address cost, efficiency and reliability.

Quality control as a sustainability lever

Smartex was recognised for applying artificial intelligence to fabric inspection at the earliest possible stage of production. By detecting defects directly on knitting machines and creating a digital twin of fabric rolls, the system shifts quality control from a reactive to a preventive model.

The industrial relevance lies in addressing a systemic issue: a large share of garment delays, waste and reprocessing originates from fabric defects discovered too late in the value chain. Early detection reduces downstream waste, re-dyeing, re-cutting and airfreight, translating sustainability gains into direct cost savings.

The solution is already deployed at scale across multiple countries, underlining its commercial maturity.

Bio-based spandex at industrial scale

LDZ New Orchard Spandex was awarded for its development of bio-based spandex produced from non-food biomass such as castor oil and corn stalks. Unlike many alternative fibre concepts, the process is already industrialised, with significant production capacity in operation.

The project stands out for combining renewable feedstocks with performance parity to conventional petroleum-based spandex. Independent life-cycle assessments support its environmental claims, while material properties meet the requirements of demanding applications such as sportswear and swimwear. The innovation demonstrates how fibre-level transformation can reduce fossil dependency without disrupting downstream processing.

Rethinking denim chemistry and processes

Archroma received the award for its integrated approach to more sustainable denim manufacturing. Its laser-compatible, low-impact dyeing and pretreatment system replaces resource-intensive and hazardous conventional processes.

Rather than introducing a single product, the innovation is designed as a system compatible with existing mill workflows and supported by measurable reductions in water, energy and carbon use. The approach also addresses occupational health and chemical management, aligning sustainability with regulatory and certification requirements. Its commercial deployment confirms that cleaner chemistry can be scaled within established denim production.

A common direction for industrial sustainability
The 2025 Innovation & Sustainability Award winners illustrate a pragmatic direction for the textile industry. Innovation is increasingly judged not by novelty alone, but by its ability to integrate into existing manufacturing structures, deliver verified environmental benefits, and improve operational performance.

For ITMF members, the message is clear: **sustainability solutions gain traction when they are industrially viable, economically relevant and immediately applicable across the value chain**

ITMF International Collaboration Awards 2025–Collaboration as an operating model for circularity and resilience

by Christian Schindler, director general, ITMF and Olivier Zieschank, director, ITMF

The ITMF International Collaboration Awards recognise progress in cross-border cooperation in line with the values of the UN Sustainable Development Goals. The 2025 award winners demonstrate that collaboration is increasingly becoming an **operating requirement** for the textile industry—particularly where circularity, scale-up and skills development intersect.

The four awarded projects reflect two complementary directions: (1) industrial collaborations that connect recycling technologies, fibre producers and brands, and (2) system collaborations that build workforce capabilities needed to implement circularity at scale.

Next-generation textile materials through circular collaboration: Tangshan Sanyou & Circulose
Tangshan Sanyou presented its cooperation with Circulose (formerly Renewcell) to industrialise recycled cellulosic fibres under the ReVisco platform. The project shows how recycling innovations move from technical feasibility to market relevance when paired with industrial production capacity and downstream integration.

A notable feature is the transition from a single "concept fibre" to a **serialised product offer** (multiple recycled-content variants and product types). The collaboration was also positioned as a chain-level model: linking fibre innovation with spinning, weaving, dyeing and brand engagement to accelerate adoption across international partners.

Building circularity through vocational excellence: Bursa Uludağ University
The ReMODE project ("Unlocking Circular Fashion Design Excellence") highlights an often underweighted component of circular transition: workforce readiness. The project aims to establish and strengthen five Centres of Vocational Excellence across participating countries, supported by digital training resources and an online learning platform.

Beyond training delivery, the project emphasises a "scale realism" approach: sustainability solutions must be evaluated on durability, resource availability, and industrial scalability—otherwise they risk shifting impacts rather than reducing them. The initiative connects education, industry and policy stakeholders to reduce the implementation gap between research and industrial practice.

From waste to value: making T2T operational through partnerships: Hyosung & LOOP & Pleasemama
Hyosung's award-winning collaboration with LOOP and Pleasemama focused on building a workable textile-to-textile loop that can progress from pilots to production. The partnership combines recycling development (chips and yarns from textile waste) with product design choices intended to support circularity.

A key industrial message was clear: circularity is constrained by **mixed-material feedstocks**, while many recycling routes work best on simplified streams. The project addresses this through collaboration—linking recycling capability, design choices (including single-material design where possible), and market demonstration with brand-facing storytelling.

Biological recycling of PET/polyester for mixed textile streams: Far Eastern New Century (FENC) & Carbios

Far Eastern New Century presented its collaboration with Carbios (France) and Salomon to advance enzymatic recycling of PET/polyester. The project underlined the industrial relevance of **selectivity**: enzymatic depolymerisation can target polyester in mixed-material textiles with less interference from other fibres.

During the Q&A session, the trade-off between enzymatic and chemical approaches was made explicit: enzymatic routes offer selectivity and mild conditions but require longer processing times, while chemical routes can be faster but increase purification complexity when non-PET components degrade. The collaboration also pointed toward "design-for-recycling" approaches, including single-polyester-system concepts for footwear.

Implications for the industry

The 2025 International Collaboration Award winners highlight a pragmatic conclusion: circularity and resilience are increasingly delivered through **networks**, not standalone solutions. Progress depends on integrating technology, industrial capacity, product design and skills development across borders and across the value chain. For ITMF members, these projects reinforce that successful international collaboration is defined by **integration, scalability and implementation capability**—especially where feedstock complexity and mixed-material reality remain the decisive constraints.

PARTNER ARTICLES

Kipas & Meltem Kimya's textile to textile chemical recycling plants

by Dr. Siva Pariti, Chief Impact Officer, BluWin (www.bluwin.net)

[2]

fibR-e™ is an integrated textile-to-textile (T2T) recycling platform for recycled polyester that combines: (i) Meltem Kimya's molecular recycling pathway (glycolysis → purification → BHET / pre-polymer → repolymerization to resin chips), and (ii) Kipaş Textiles' thermomechanical processing (chip drying → melt filtration/extrusion → spinning → winding and/or staple fibre conversion).

Kipas Textiles management had organized a **tour to the production plants** of Meltem Kimya in Adana and Kipas Textiles in Maras Türkiye.

This article is based on the fibR-e™ presentations and the fibR-e™ press release provided by the company along with the physical visit to the plants. Where plant setpoints

[2] This Photo by Unknown Author is licensed under CC BY-SA-NC

Source: Kipas - Recycled filament production

[continues] and proprietary formulations are not disclosed, this report uses standard industrial process engineering logic to define the control parameters and records.

The process starts from Meltem Kimya plant where the feedstock of polyester rich post-consumer and industrial textile waste was used. Input includes recycled PET bottle flakes and polyester-rich blends with ≥70% polyester content, Elastane-containing blends and garments with accessories attached (e.g., zippers/buttons), without pre-removal.

The feedstock is taken without sorting and removing accessories or any chopping or shredding. It is then dissolved and batched using mono ethylene glycol. This step will produce the oligomer through chemical depolymerization. This oligomer is subjected to purification followed by intermediate formation and re-polymerization to get resin chip production. This step involves mixing recycled polyester chips (50%) and textile-to-textile (T2T) waste oligomer to produce the polyester recycled chips. These chips are then sent to Kipas Textile's site to produce the polyester fibre/yarn made of 50% recycled polyester chips from PET bottles + 50% textile-derived polyester. The staple fibre route includes a declared 20% T2T / 80% PET flake blend in the thermomechanical flow. Filament yarn portfolio indicates up to 50% T2T content. Blending is managed via lot-based batching and mass balance accounting.

> read an extended version of the article here